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Sequence 3, Appli
Sequence 1, Appli
Sequence 1, Appli
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Sequence 371, App
                                                                                                                                                                   June 17, 2005, 19:35:47; Search time 968.901 Seconds (without alignments) 9904.902 Million cell updates/sec
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/ Ggn2_6/ptodata/1/pubpna/USO7 PUBCOMB.seq:*

/ Ggn2_6/ptodata/1/pubpna/USO6 PUBCOMB.seq:*

/ Ggn2_6/ptodata/1/pubpna/USO6 PUBCOMB.seq:*

/ Ggn2_6/ptodata/1/pubpna/USO7_NEW PUB.seq:*

/ Ggn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*

/ Ggn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*

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/cgn2_6/ptodata/1/pubpna/US10I_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10 MEW PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US11A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US11 MEW PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US60 MEW PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-10-903-948-3
US-10-051-307-1
US-10-903-948-1
US-10-9051-307-2
US-10-903-948-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6054689 seqs, 3103772919 residues
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                  nucleic search, using sw model
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Gapop 10.0 , Gapext 1.0
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Perfect score:
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15621, 532, A	US-10-437-963-1562 US-10-259-165-532	13	869 633	9 .9 .5	102.4	4 4	U
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quence 46,	US-09-966-881-46	6	80		•	40	
Sequence 14	US-10-767-701-1433	13	855	•	07.	39	U
equence 1	US-10-437-963-1	19	63	•	. 60	38	υ
u	US-10-437-963-5987	19	1950	•	12.	37	υ
Sequence 806, App	US-09-770-791-806	6	34	•		36	O
Sequence 10104,	US-10-425-115-1010	20	634	•	21.	32	υ
13566,	US-10-767-701-1356	13	03	•	23.	34	υ
47685,	US-10-425	20	1189	•	126.8	33	υ
10106,	US-10-425-115-1010	20	905	•	33.	32	O
4067	US-10-260-238-4	17	922	•	33.	31	υ
27634,	US-10-425-114-2	18	911	•	35.	30	υ
7737,	US-10-42	18	901	•	35.	53	υ
49, A	US-10-260-238-4	11	879	•	35.	28	υ
4061	US-10-260-238-406	17	802	•	135.6	27	U
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3136,	US-10-260-238-313	17	1020	•	40.	24	υ
Sequence 571, App	US-10-259-165-57	15	1020	•	40.	23	O
29028	US-10-425-115-2902	20	42	•	41.	22	Ü
89268	US-10-437-963-8	13	1052	•	42.	21	υ
109,	US-10-259-165-10	12	669	•	42.	20	U
353, 7	US-10-259-165-	12	969	•	4	19	υ
7736,	US-10-424-599-773	18	17	•	45.	18	υ
8660	US-10-437-963-86	13	1006	9.9	53.	17	υ
Sequence 41, Appl	US-10-259-165-41	15	720	10.1	155.8	16	υ
389,	US-10-259-165-3	15	717	٥.	55.	15	υ
36	US-10-424-599-36	18	1956	11.1	71.	14	υ
4,	US-10-636-026-	13	875	ä	80.	13	υ
Sequence 4, Apply	US-10-636-396-	18	875		80.	12	υ
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ALIGNMENTS

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Sequence 3, Application US/10051307

Sequence 3, Application US/10051307

Publication No. US20020170095A1

GENERAL INFORMATION:

APPLICANT: DAI, ZIYU

APPLICANT: SHI, LIFANG

TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF

TITLE REFRENCE: 059440/0141

CURRENT FILING DATE: 2002-01-22

PRIOR FILING DATE: 2001-01-23

NUMBER OF SEQ ID NOS: 14

SOCTWARE: Patentin Ver. 2.1

SEQ ID NO 3

LENGTH: 1546
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99.9%; Score 1545; D
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1546; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (1248) - OTHER INFORMATION: a, t, c or g
                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Solanum tuberosum
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Db		Db 1501 GAATTAAATGGAGGCAAATAAGTCTATGGTGAAGTTGGTTG	GENERAL INFORMATION: APPLICANT: DAI, ZIYU APPLICANT: HOOKER, BRIAN S. TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF FILE REFERENCE: 059440/0141	; CURRENT APPLICATION NUMBER: US/10/031,30/ ; CURRENT FILING DATE: 2002-01-22 ; PRIOR APPLICATION NUMBER: 60/263,224 ; PRIOR FILING DATE: 2001-01-23 ; NUMBER OF SEQ ID NOS: 14	; SOFTWARE: PatentIn Ver. 2.1 ; SEQ ID NO 1 ; LENGTH: 1595 ; TYPE: DNA ; ORGANISM: Solanum tuberosum	US-10-051-307-1 US-10-051-307-1 Query Match Query Matc	0; TGGA	Db 49 ALCTITIGITHEANANATICGAAAAGAACHIAGGACCACAGGACCTITIGITHIALITI 108 Qy 61 ATTGITGCCCAAAAATTGCGTACAAGATTGITAAATCCTGGGTAAACACAT 108	Db 109 ATTGTTGTCCTCCAAGGATTGTGGTACAGGATTGTTCTCCGGGGGTTGACTTTAAGTTGAC 168 Qy 121 TAGGACATTCACCATTATATTTGCCGTGCATTGAATTGCGTGGCATTTCCTCCACTTG 180	Db 169 CAGGCCATTCACCATTTATATTTGCCGTGCATTGAATTGCCTCCACTTG 228 Qy 181 GATTAGTCGGGGGGAAGTCATCGTATAAATCCATTAAATGAAATGTCCAGA 240	Db 229 GATTAGTGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCCAGA 288 Qy 241 AATCTAAGTTGAACTGGTCCGAGGCGTACTGGGGTGTTTGGGGGTTTAAGTTGTCGCC 300	Db 289 AATCTAAGTTGTTGAACTGGTCCAAGGGGTACTGGCTTGTTTTTTTT	Db 349 ACCCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTCTACCAGCAC 408
	ACCCGGTGCACTGCAGGACCACCACAATCACCAGTCATGCAGGACCTCTACCAGGACACTTTALLIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	421 CANTACCACGATTIGGCCTCGATCGATGATGATCGATGATGATGATGATGATGATGATGATGATGATGATGATG	CAAAAGCAAGAAGAGAGAAAACAAAAGAAGATCTCAAGTAGCCCATGTTTGTT	601 ATATGEGGACAAATTATTTTTGGTACTTTATATAGGGGTATGGCGGCTTTTTGGCACTA 660 661 TGGATATTAATCGTATTATATAACAATATCATTTGACTAATTATAAACAAATAT 720 661 TGGATATTAATCGTATTATATAACAATATCATACTTTGACTAATTATAAAACAAATAT 720	721 TACAATATGATTTGGTAAACGTTGAGGTGGCAAAATGTATAAGAGCCGCCTAATAATTAA 780 	781 TTATTTATGAATATAGACTATAGTTACAAGTGAACTTTATTTGGTGATAACTTGGACAT 840 	841 ATAAACTCTGTATCGTGACGGAACTTTTCTTAAAACTAAAATATTAAAAAGCAGCTATTTT 900 	901 AATATTTTCGTGGCCAAAGTTTCTTGCATACTTATCTATGCCCATTTTTACTTTTATCG 960	961 TTCTAGCCTTCTAGGTACGCGTTTGAACATAAAAATCATAAAAATTGAAAGTAAAAATT 1020 	1021 AGTTTTTTTCATATTACTCGTATGGATCATTTGTTAGATCAATGTGAAATATACAAATC 1080 	1081 ATTCTGATTTTAAAATCATAACTATTCTGCATGATGGGAACGTCTATGGTGATTCGTGAC 1140	1141 AAGTGTTTGATTTATTCTAAGTCTGGATTGGAGTCACAACTTTTAGTGCAAATATCTATT 1200	1201 AAAAGAACCCCTATTTGATGCAAAAGTCAATAAATATTTAATATCATNCTTTATTTT 1260

 GAAA 1544 	THEREOF	Gaps 4;	CAAT 60 CAAT 108	TGAC 120	ACTTG 180 ACTTG 228	CCAGA 240	ACCCC 300 	AGCAC 360 GCAC 408	GCAT 420 GCAT 468	GCTG 480	GTCA 540 GTCA 587	ATTT 600
ATACCTCTAAAAACTAAATGCATCTAACAACACAAATATAAAACTTAGATTCTTTAAAGAAA TTGCAGAATTAAATGGAGGAAATAAGTCTATGGTGGTTGGT		1595; 9;	1 ATCTTTGTTTGAAAAATTGGAAAAGAAGGTAGGACCACATGGACCTTGGGTGCAACAAT	61 ATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTTAAGCTGAC 	121 TAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGTGGCATTTCCCTCCACTTG	GATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCCAGA 	AATCTAAGTTGTTGAACTGGTCCGAGGCGTACGGCTAGGGTGTTTGGCGGTTTACCCC	ACCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTCTACCAGCACACACA	CATCGAAGTIACAICCAGIACGACCCCATAIACGIGCCATCGIAGIGCCCCTAGGGGCAT 	CAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCACCGCCTATCGGGGTCGATGCTG	CCCAGACGGTGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATGAAGTGAAAGTCA 	caaaagcaagaagagaaaaacaaaagaagatctcaagtagcccatgtttgtt
AAACTTAGA STTGGTTGC	FROM POTATO AND	21; Length ; Indels	CATGGACCT	cerceggri cerceggri	scgrggcar srgrggcar	CCAACTAAA CAACTAAA	AGGGTGTTT AGGGTGTTT	ATGCACGAA ATGCACGAA	ATCGTAGTG ATCGTAGTG	CCCCTATO	STGGCAGCA'STGGCAGCA'STGGCAGCA'	PAGCCCATG'
######################################	TED FROM	Score 1362.4; DB 21; Pred. No. 5.4e-287; ; Mismatches 82;]	STAGGACCA STAGGACCA	rtgttacat rtgttacat	CATTGAATT	rtaaatcca' rtaaatcca'	ractcggcti ractcggcti	CCACCAGTC	ATACGTGCC	SGTCGGCCA	ACCTCGATA(3ATCTCAAG
 NTCTAACAA(NATAAGTC' 	.0/903,941 .0/903,941 .0/224	core 1367 red. No. Mismato	aaaagaac aaaagaac	TACAAGGA' TACAAGGA'	TTGCCGTG(ATCGGTATA' ATCGGTATA'	ccgagggg ccaaggcg	CACCACAA'	GACCCCATA GACCCCATA	GATCGAGA GATCGAAA	TGTTGCGT/ TGTTGCGT/	Caaaagaa
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	lication US2050050 TION: TION: TI LIFANC OKER, BRI TION: GEN : 059440/ ATE: 200 ION NUMBE ATE: 2001	larity Conservat	TTTGTTTGA TTTGTTTGA	GTTGTCCTC	GACATTCAC GGCATTCAC	TAGTCGGGG TAGTCGGGG	CTAAGTTGT CTAAGTTGT	CGGTGCACT	CGAAGTTAC	TGACCCACG TGACCCACA	AGACGGTGT AAACGATGT	aagcaagaa
 1485 ATA 1496 TTG 	SULT 4 -10-903-948-1 Sequence 1, Application US/10- Publication No. US2005005324 GENERAL INFORMATION: APPLICANT: DAI, ZIYU APPLICANT: BH, LIFANG TITLE OF INVENTION: GENE PROI FILE REFERENCE: 055440/0141 CURRENT APPLICATION NUMBER: US- PRIOR APPLICATION NUMBER: US- PRIOR APPLICATION NUMBER: US- PRIOR FILING DATE: 2002-01-22 NUMBER OF SEQ ID NOS: 14 SEQ ID NO 1 LENGTH: 1595 LENGTH: 1595 TYPE: DNA ORGANISM: Solanum tuberosum -10-903-948-1	Query Match Best Local Similarity 94.1%; Matches 1460; Conservative	1 ATC 49 ATC	61 ATT 109 ATT	121 TAG 169 CAG	181 GAT 229 GAT	241 AAT 289 AAT	301 ACC 349 ACC	361 CAT 409 CAT	421 CAA 469 CAA	481 CCC 528 CCC	
qa & qa	RESULT 4 US-10-903-948-1 Scauence 1, Application US/10903948 Publication No. US20050005324A1 GENERAL INFORMATION: APPLICANT: SHI, LIFANG APPLICANT: BRIAM S. TITLE OF INVENTION: GENE PROMOTERS ISOLATED FRG FILE REPERENCE: 059440/0141 CURRENT APPLICATION NUMBER: US/10/903,948 CURRENT FILING DATE: 2002-01-22 PRIOR APPLICATION NUMBER: US/10/051,307 PRIOR FILING DATE: 2002-01-23 NUMBER OF SEQ ID NOS: 14 SEQ ID NO 1 SEQ ID NO 1 LENGTH: 1595 TYPE: DNA CRANISM: Solanum tuberosum US-10-903-948-1	Query Best L	S S	çy Bp	දු අ	ъ д	ر م	oy Oy	oy Oy	Qy Dp	ر م م	ò
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TAGTGCCCC TAGTGCCCC CTATCGGGG	CAGCATAAG CAGCATAAG CCATGTTTG CCATGTTTTG CCATGTTTTTTTTTT	TTAAAAAGC TTAAAAAGC	CCATTTTA CCATTTTTA	aaattgaaa aaattgaaa	TCAATGTGA TCAATCTGA	acgrcrarg 	CTTTTAGTG 	TTAATATCA CCCTATTCA	aaattggaa aaattggaa	GTTAGTATG GTTAGTATG	TCCTATAAA TCCTATAAA	TTAGATTCT
GTGCCATCG	CGATAGTGG CGATAGTGG CGATAGTGG TCAAGTAGC TCAAGTAGC ATAGGGATA CTTTGACTA CTTTGACTA AATGTATAAA AATGTATAATT AACTTTATT	aactaaata aactaaata	ratctatgc ratctatgc	raatcataa 	rttgttaga rttgttaga	atgatggga caagggaa	GAGTCACAA GAGTCACAA	TAAATAT TAAAAGAAC	AATTAAAAT AATTAAAAT	TCCCCTAAC FAAAATAAC	TCCCCTATC FAAATATC	aatataaac
CCATATAC CCATATAC CAGACGTC	TGCGTACCT TGCGTACCT TGCGTACCT TAGAGATC ACTTTATAT TTTTTTTTTT	rttrcttaa rttrcttaa	FTGCATACT	BAACATAAA BAACATAAA	ratggatca ragggatca	TATTCTGC	CTGGATTG	AAAAGTCAA' ATATCTAT	ACATTTACT	SATCCACAT	ATTTAGTTT ATTTAGTTT	AACAACACA
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TACATCC TACATCC ACGTTTC	TGC TGC	PATCGI AACGI	919900 	CTAGGT CTAGGT	TTTCAT	TTTTAP TTTTAP	TGATTI TTGATT	CCCCTA	ATCGGP	TCAAGO TCAAGO	STGGAT STGGAT	AACTAA
6-6 9-8	GGTGTAA AAGAAG AAGAAG GGCAAA GCACAA GCACAA TAATCG TAATCG TAATCC TAATCG TAATCG TAATCG TAATCG		orr TT-			43—143 143—143	GTT 	GA-GA	ACC	5 <u> </u>	8=8 =8	TAA
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361 CATCGAAGT 409 CATCGAAGT 421 CAATGACCC 469 CAATGACCC	481 CCCAGACGGTGTA 	841 ATAAACTCTGT 888 ATAAACTCTGT		961 TTCTAGCCTT 1008 TTCTAGCCTT	1021 AGTTTTT 	1078 ATCATTCTGA 		1198 ATTAAAGAA 1245 ATTAAAGAA				10

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APPLICANT: DAI, ZIYU
APPLICANT: SH1, LIFANG
APPLICANT: HOOKER, BILL
TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF
FILE REFERENCE: 059440/0141
CURRENT PAPLICATION NUMBER: US/10/051,307
CURRENT FILING DATE: 2002-01-22
PRIOR APPLICATION NUMBER: 60/263,224
PRIOR APPLICATION NUMBER: 60/263,224
PRIOR APPLICATION NUMBER: 2010-01-23
NUMBER OF SEQ ID NOS: 14
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                Query Match
Best Local Similarity 93.8%;
Matches 1456; Conservative (
                                                                                                                                                    TYPE: DNA
; ORGANISM: Solanum tuberosum
US-10-051-307-2
                                                                                                                                         LENGTH: 1598
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                                                                                 TGGATATTAATCGTATTATATAACAATATCATACTTTGACTAATTATAAACAAATAATAT
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180 240 288 300 348 360 408 420 718 778 120 168 228 CACCGAAGTTACATCCAGTACGACCCCCATATACGTGCCATCGTAGTGCCCCTAGGCGCAT 468 CAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCACCGCCTATCGGGGTCGATGCTG 480 538 598 658 767 827 108 527 587 647 707 9 CAATGACCCACATTTGGCCTCGATCGAGACGTCGGGCACCGCCTATC-GGGTCGATGCCG ATTGTTGTCTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTTAAGCTGAC ATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTTAAGCTGAC ACCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTCTACCAGCAC CCCAAACGATGTATGGACAGTTGTTGGCGGTACCTCGATAGTGACAGCATAAGTGAAAGT TATGGATATTAATCGTATTATAACAATATCATACTTTGACTAATTATAAACAAATAAT ATCTTTGTTTGAAAAAATGGAAAAGGAACGTAGGACCACATGGACCTTGGGTGCAACAAT TAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGTGGCATTTCCCTCCACTTG 169 TAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGTGTGGGCATTTCCCTCCACTTG 241 AATCTAAGTTGTTGAACTGGTCCGAGGCGTACTCGGCTAGGGGGTGTTTGGCGGTTTACCCC AATCTAAGTTGTTGAACTGGTCCAAGGCGTACTCGGCTAGGGTGTTTGGTTTGCCCC CCCAGACGGTGTATGGACAGTTGTTG--CGTACCTCGATAGTGGCAGCATAAGTGAAAGT TTATATGTGGACAAATTATTTTTGGTACTTTTATATAGGGATATGGCGGCTTTTTGGCAC TTATATGTGGACAAATTATTTTTGGTACTTTATATATAGGGATATGGCGGCTTTTGGCAC ATTACAATATGATTTGGTAAACGTTGAGGTGGCAAAATGTATAAGAGCCGCCTAATAATT GATTAGTCGGGGCGAAAGTCATCGCTATATTAAATCCATCAACTAAAGAAATGTCCCAGA ACCCGGTGCACTGCAGGACACCACACAATCACCAGTCATGCACGAACCTCTACCAGCAC CATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAGGCGCAT 1 ATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAACAAT 10; Gaps Score 1334.4; DB 13; Length 1598; Pred. No. 7e-281; 0; Mismatches 87; Indels 10; 719 708 168 쉽 à 셤

RESULT 5
US-10-051-307-2
is Sequence 2, Application US/10051307
is Publication No. US20020170095A1
igeneral Information:

; TYPE: DNA ; ORGANISM: Solanum tuberosum US-10-903-948-2	Query Match 86.3%; Score 1334.4; DB 21; Length 1598; Best Local Similarity 93.8%; Pred. No. 7e-281; Matches 1456; Conservative 0; Mismatches 87; Indels 10; Gaps 6;	Oy 1 AICTITIGIATEAAAAAATGGAACATAGGACCACAIGGACCITGGGIGCAACAAT 60	OY 61 ATTGITGECCECCAAATGIGGATTGITATACAICCECGGGTACTITAAAGCIGAC 120	QY 121 TAGGACATTCACCATTTATATTTGCCGTGCATTGCGTGGCATTTCCCTCCACTTG 180 DD 169 TAGGACATTCACCATTTATATTTGCCGTGCATTGATTGTGGCATTTCCCTCCACTTG 228	Qy 181 GATTAGTCGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCCAGA 240	Qy 241 AATCTAAGTTGTAGAACGGAGGGTACTCGGCTAGGGTGTTTGGCGGTTTACCCC 300 L	Oy 301 ACCCGGTGCACTGCAGGACACCACACAATCACCAGTCATGCACGAACCTCTACCAGCAC 360	Qy 361 CATGGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAGGCGCAT 420	Qy 421 CAATGACCCACGTTTGGCCTCCGATCGAGACGTCGGCCACCGCCTATCGGGGTCGATGCTG 480	Oy 481 CCCAGACGGTGTATGGACAGTTGTTGCGTACCTCCATAGTGGCGCATAAGTGAAAGT 538	OY 539 CACAAAAGCAAGAAGAAAAACAAAAGAAGATCTCAAGTAGCCCATGTTTGTT	Qy 599 TIADADGGCACAAATTATTTTGGTACTTTATATATAGGGATATGGCGCCTTTTGGCAC 658 bb 648 TIATATGTGACAAATTATTTTGGTACTTTATATATATAGGGATATGGCGGCTTTTTGGCAC 707	Qy 659 TATGGATATTAATGTATTATAACAATATCATACTTTGACTAATTATAAACAATAAT 718 Db 708 TACGGATATTAATCGTAAACATATCATACTTTGACTAATTATAAACGAAATAT 767 Qy 719 ATTACAATATGATTAGTAAACGTTGAGTGGCAAAATGTATAAGAGCCGCCTAATAATT 778 Db 708 ATTACAATATTATGATAAACGTTGAGGTGGAAAAGTATTTTGGTGATAAATT 827 Qy 779 AATTATTTATGATATAGCCTATAGTTACAAGTGAACTTTATTTGGTGATAACTTTGGG 838 Db 828 AATTATTTATGAATATAGCCTATAGTTACAAGTTAACTTTATTTGGTGATAACTTTGG 887 Qy 839 ATTATTTTATGAATATAGCCTATAGTTACAAGTTAACTTTATTTGGTGATAACTTTGG 887 Db 888 ATTATTTTTTGGAGACGTAGCTTACTTAAAACTTAAAAAGCAGCTATT 898 Db 889 TTAATAAACTTGGGGAGGAGGAATTTTTTTTTTTTTTTT
Qy 779 AAITATTTTATGAATATAGACTATAGTTACAAGTGAACTTTATTTGGTGATAACTTGGAC 838 	Qy 839 ATATAAACTCTGTATCGTGACGGAACTTTTCTTAAAACTAAATATTAAAAAGCAGCTATT 898 	QY 899 TIAATAITTICGIGGCCAAAGITICTIGCAIACITAIGIAGCCCAITTIACTITAT 958	OY 959 CGITCIAGCCTICTAGGIACGCGTTIGAACAIDAAAATCAIDAAAATIGAAAGIAAAAA 1018 	OY 1019 TTAGTTTTTTTCATATTACTCGTATGGATCATTGTTAGATCAATGTGAAAIATAC 1075	OY 1076 AAATCATTTTAAAATCATAACTATTCTGCATGATGGAACGTCTATGGTGATTC 1135	Oy 1136 GIGACAAGIGITIGATITATICIAAGICIGGALIGGAGICACAACTITIAGIGCAAATAI 1195 	OY 1196 CTATTAAAAGAACCCCTATTIGAIGCAAAAGTCAATAAATATTTAATATCATNCTTTA 1253 	OY 1254 TIDAITITACGAICGGAGCAIGGAIACAITIACTAAITAAAATAAAITAGAAGGAAITG 1313 	OY 1314 AICGACAAGTCATCAAGCTTAICGTCGATCCACATTCCCCTAACGTTAGTATGCCTGCTT 1373	Qy 1374 TTAGAGAAACAAGTGGATCATGTATATAGTTTFCCCCTATCTCCTATAATATGTGT 1433	OY 1434 ATATACCTCTAAAACTAAATGCATCTAACAACAAAATATAAACTTAGATTCTTTAAAGA 1493 Db 1486 CTATCCCTCTTAAACCAAATACAACTAACACACACAAAATATAAACTTAGATTCCTTAAAGA 1545	OY 1494 AATTGCAGAATTAAATGGAGGCAAATAAGTCTATGGTGAAGTTGGTTG	RESULT 6 US-10-903-948-2 US-10-903-948-2 Sequence 2, Application US/10903948 Publication No. US20050005324A1 GENERAL INFORMATION: APPLICANT: BAI, ZIYU APPLICANT: SHI, LIFANG APPLICANT: HOOKER, BRIAN S. TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF TITLE OF INVENTION: GENE PROMOTERS 1SOLATED FROM POTATO AND USE THEREOF CURRENT APPLICATION NUMBER: US/10/903,948 CURRENT FILING DATE: 2004-07-30 PRIOR APPLICATION NUMBER: 60/263,224 PRIOR PILING DATE: 2001-01-23 PRIOR PILING DATE: 2001-01-23 NUMBER OF SEQ ID NOS: 14 SOFTWARE: PATENTIN VEY: 2.1 SEQ ID NO 2 LENGTH: 1598

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APPLICANT: Harper, Jeff
APPLICANT: Kreps, Joel
APPLICANT: Kreps, Joel
APPLICANT: Wang, Xun
TITLE OF INVENTION: SARE, AND METHODS OF PLANTS, TRANSGENIC PLANTS CONTAINING
TITLE OF INVENTION: SARE, AND METHODS OF USE
TITLE OF INVENTION: SARE, AND METHODS OF USE
FILE REFRENCE: SCRIP1300-3
CURRENT APPLICATION NUMBER: US/09/938,842A
CURRENT APPLICATION NUMBER: US 60/227,866
PRIOR APPLICATION NUMBER: US 60/227,866
PRIOR FILING DATE: 2001-08-24
PRIOR PILING DATE: 2001-08-24
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-06-22
NUMBER OF SEQ ID NOS: 5379
LENGTH: 735
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                                                                                         61 ATTGTTGTTCTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTTAAGCTGAC 120
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Pred. No. 5.6e-35;
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Patent No. US20020160378A1
GENERAL INFORMATION:
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Best Local Similarity 64.6%;
Matches 346; Conservative (
    Best Local Similarity 78.1
Matches 350; Conservative
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APPLICANT: Craster, Oswald
APPLICANT: Craster, Oswald
APPLICANT: Craster, Oswald
APPLICANT: Swirsky, Peter
APPLICANT: Swirsky, Peter
APPLICANT: Swirsky, Peter
APPLICANT: Folkerts, Otto
APPLICANT: Folkerts, Otto
APPLICANT: Exergine, Sophia
TITLE OF INVENTION: INTERACTIONS AND METHODS OF USE
TITLE OF INVENTION: INTERACTIONS OF USE
TITLE OF INVENTION: INTERACTIONS AND METHODS OF USE
TITLE OF INVENTION: INTERACTIONS AND METHODS OF USE
TITLE OF INVENTION UNMBER: 03002-01-14
CURRENT FILING DATE: 2002-01-14
PRIOR APPLICATION NUMBER: 60261029
PRIOR APPLICATION NUMBER: 60261029
PRIOR PILING DATE: 2001-01-11
PRIOR FILING DATE: 2001-01-11
SOFTWARE: PatentIn version 3.1
SEQ ID NO 371
LENGTH: 510
AAATCATICTGATTTTAAAATCATAACTATTCTGCATGATGGGAACGTCTATGGTGATTC 1135
                                                                                                                                                                                                                                                      TITATITITACGATCGGAGCATGGATATATTACTAATTAAAATAAATTGGGAGGAGTTG 1365
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                                                                                                                                                                                                                                 GTGACAAGTGTTTGATTTATTCTAAGTCTGGATTGGAGTCACAACTTTTAGTGCAAATAT 1195
                                                                                                                                                                                                                                                                                                                                                 CTATTAAAAGAACCCCTATTGATGCAAATATCTATTAAAAGAACCCCTATTCATACTTTA 1305
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCGACAAGCCATCAAGCTTATCGTCGATCCACATTAGGATAACGTTAGTATGGCTGTTT 1425
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                                                                                                                                                                                                                                                                                                             CTATTAAAAGAACCCCTATTTGATGCAAAAGTCAATAAA--TATTTAATATCATNCTTTA 1253
                                                                                                                                                                     AAACCATTCTGATTTTAAAATCACAACCATTCTGCCTAATGGGGAAGTCTAT-GTGATTC
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US-10-341-961A-371/c
Sequence 371, Application US/10341961A
; Publication No. US20040006787A1
; GENERAL INFORMATION:
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                                                  CTAAAGAAATGTCCCAGAAATCTAAGTTGTTGAACTGGTCCGAGGCGTACTCGGCTAGGG
                                                                                                              TETTTGGTGGCTGTCCCCAGCCAGTACATTGGAGTCCACCACTGCAGTCACCAGTTTGGC
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APPLICANT: Allen, Keith
APPLICANT: Hoffman, Neil
APPLICANT: Hoffman, Neil
TITLE OF INVENTION: Expressed Sequences of Arabidopsis;
TITLE OF INVENTION: Expressed Sequences of Arabidopsis;
TITLE OF INVENTION: LALiana
FILE REFERENCE: 2023US (PARA-012PRV)
CURRENT PAPLICATION NUMBER: US/09/770,445
CURRENT FILING DATE: 2001-01-26
PRIOR PILING DATE: 2000-01-27
PRIOR FILING DATE: 2000-01-27
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Pred. No. 6.3e-35;
0; Mismatches 178;
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SOFTWARE: FastSEQ for Windows Version 4.0
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Patent No. US20020023281A1
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Matthew, Abraham V.
Ledford, Brooke L.
Woessner, Jeffrey P.
Haas, William David
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ORGANISM: Arabidopsis thaliana
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Rameaka, Joshua G.
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Hamilton, Carol M
Price, Jennifer L
Raines, Tracy M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Garcia, Carlos A
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13.4'
Best Local Similarity 64.6
Matches 346; Conservative
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Slader, Ted
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LENGTH: 950
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APPLICANT:
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Sequence 2118, Application US/0993842A

Sequence 2118, Application US/0993842A

Publication No. US20040009476A9

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Mang, Xun

APPLICANT: Mang, Xun

APPLICANT: And, Tong

TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING

TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING

TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS

CURRENT APPLICATION: WUMBER: US/09/938, 842A

CURRENT APPLICATION NUMBER: US 60/227, 866

PRIOR FILING DATE: 2000-08-24

PRIOR FILING DATE: 2000-08-24

PRIOR FILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-06-22

NUMBER OF SEQ ID NOS: 5379

LENGTH: 735
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                                                                                       GGCATTTCCCTCCACTTGGATTAGTCGGGGCGAAAGTCCATCGGTATAAATCCATCAA
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                                                                                                                                                                          415 GGCAGTTC-----GAACTAGTTGGGCTAAACTCCATAGGTATGTTAAATCCATCGA
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Pred. No. 5.6e-35;
0; Mismatches 178; Indels
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Best Local Similarity 64.6%;
Matches 346; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
US-09-938-842A-2118/c
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121 TAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGTGGCATTTCCCTCCACTTG 180
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                                                                                                                          241 AATCTAAGTTGTTGAACTGGTCCGAGGCGTACTCGGCTAGGGTGTTTGGCGGTTTTACCCC 300
                                                                                                                                                                                                    394 AGTCCAAATTGTTGAACCCGTTCAGGCCGTATTCAGCCAGGGTGTTGGGAGGCGCACCGT 335
                                                                                                                                                                                                                                                                                 301 ACCCGGTGCACTGCAGGACACCACACAATCACCAGTCATGCACGAACCTCTACCAGCAC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                        CATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAGGCGCAT 420
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                                                                                                                                                                                                                                                                                                                                                  334 AAGCTTTGCAGTCGAGGACACCCCCGCAGTCACCGGTCTGGCATCCACCGCGGCCCGAAC
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Pred. No. 3.9e-29;
0; Mismatches 204; Indels 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4, Application US/10636396;
Bublication No. US20040073971A1
GENERAL INFORMATION:
APPLICANT: Crasta, Oswald R.
APPLICANT: Crasta, Oswald R.
APPLICANT: Duvick, Jon
APPLICANT: Lu, Guihua
TITLE OF INVENTION: Genes and their Uses
TITLE OF INVENTION: Genes and their Uses
FILE REFERENCE: 5718-30
CURRENT APPLICATION NUMBER: US/10/636,396
CURRENT FILING DATE: 2003-08-07
FRICK FILING DATE: 1999-06-23
PRIOR FILING DATE: 1999-06-23
PRIOR FILING DATE: 1999-06-31
FRICK APPLICATION NUMBER: 60/162,904
FRICK FILING DATE: 1999-06-31
FRICK FILING DATE: 1999-06-31
FRICK FILING DATE: 1999-11-01
NUMBER OF SEQ ID NOS: 41
SEQ ID NOS: 41
SEQ ID NOS: 41
LENGTH, APPLICATION NUMBER: 60/162,904
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Best Local Similarity 60.9
Matches 332; Conservative
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US-10-424-599-103619/C
US-10-424-599-103619, Application US/10424599
Sequence 103619, Application No. US20040031072A1
Sequence 103619, Application No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Cao Yinua
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPERENCE: 38-21(3323) B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SCOULD NO 103619
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        CGGGTACTTTAAGCTGACTAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGT 162
                                                                                                                                                                                                                                    GGCAGTIC-----GAACTAGTIGGCTAAACTCCATAGGTATGTTAAATCCATCGA 373
                                                                                                                                                                                                                                                                                                                      CTAAAGAAATGTCCCAGAAATCTAAGTTGTTGAACTGGTCCGAGGCGTACTCGGCTAGGG 282
                                                                                                                                                                                                                                                                                                                                                                                                   CAAGTGAGATATCGTAGAAGTCTAAGTTGTTGAATTGGTTCAAAGCGTACTCAGCCAACG 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTTTGGCGGTTTACCCCACCCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGC 342
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAGTGCCCGCCGCGACATCTAGCCTCCATGATTGGCCAGCATCTAGACGTCGGCCACCTC 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCTTTGCTTGAAGAATCTGGAATAATCAGTGGGCCCACAGCTACCGGAATTGCAACAGT 569
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                                                                                                                                                               GGCATTTCCCTCCACTTGGATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAA
                                                                             <u> creeegerracaacacerraeeacarrerceerraarerceegracaracaracear</u>
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US-10-424-599-103619
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ORGANISM: Glycine max
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APPLICANT: La Rosa Thomas J
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                                           AATCTAAGTTGTTGAACTGGTCCGAGGCGTACTCGGCTAGGGTGTTTGGCGGTTTACCCC 300
                                                                                                                                                                                                                                                                   283 AGTITTGGCATTGGAGGAGACCGTTGCAATCACCGGTCTGACACCTGCCTCGCCCAGAAC 224
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                                                                                                                 421 CAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCACCGCCTATCGGGGTCGATGCTG
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                                                                                                                                                                                                ACCCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTCTACCAGCAC
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Pred. No. 5.3e-27;
0; Mismatches 209; Indels 12;
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US-10-424-599-36321
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OTHER INFORMATION: unsure at all n locations
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11.1%; $
milarity 59.8%; F
Conservative 0;
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US-10-424-599-36321/c
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AATCTAAGTTGTTGAACTGGTCCGAGGCGTACTCGGCTAGGGTGTTTGGCGGGTTTACCCC 300
                                                                                                                                                                                                                                                                                                          CATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAGGCGCAT 420
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Acricaricagrirraracaciderecaadderirarrecacceceaddagecegraacreae 458
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                                                                          AGTTTTGGCATTGGAGAGACCGTTGCAATCACCGGTCTGACACCTGCCTCGCCCAGAAC 224
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                                                                                                                                                     ACCOGGIGCACTGCAGGACACCACACAATCACCAGTCATGCAGGAACCTCTACCAGCAC
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Publication No. US20040111761A1
GENERAL INFORMATION:
APPLICANT: Bidney, Dennis L.
APPLICANT: Crasta, Oswald R.
APPLICANT: Duvick, Jon
APPLICANT: Hu, Xu
APPL
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CURRENT APPLICATION NUMBER: US/10/636,026
CURRENT FILING DATE: 2003-08-07
PRIOR APPLICATION NUMBER: US/99/589,733C
PRIOR FILING DATE: 2000-06-08
PRIOR PILING DATE: 1999-06-23
PRIOR PILING DATE: 1999-06-23
PRIOR PILING DATE: 1999-06-16
PRIOR PILING DATE: 1999-11-01
NUMBER OF SEQ ID NOS: 41
SOFTWARE: FASELSEQ for Windows Version 3.0
SEQ ID NO 520
LENGTH: 875
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Matches 332; Conservative
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APPLICANT: Wang, Xun
APPLICANT: Chang, Hur-song
APPLICANT: Chang, Hur-song
APPLICANT: Chang, Hur-song
APPLICANT: Cooper, Bret
APPLICANT: Cooper, Bret
APPLICANT: Cooper, Bret
APPLICANT: Gazebrook, Jane
APPLICANT: Gazebrook, Jane
APPLICANT: Katagiri, Funiyaki
APPLICANT: Katagiri, Funiyaki
APPLICANT: Katagiri, Funiyaki
APPLICANT: Ratagiri, Funiyaki
APPLICANT: Ratagiri, Funiyaki
APPLICANT: Provart, Nicholas
APPLICANT: Provart, Nicholas
APPLICANT: Provart, Nicholas
APPLICANT: Brick, Darzell
APPLICANT: Bring Darzell
FILING DATE: 2002-09-26
BRIOR FILING DATE: 2002-03-27
PRIOR APPLICATION NUMBER: US 60/370,620
PRIOR FILING DATE: 2002-03-27
PRIOR FILING DATE: 2002-03-27
PRIOR APPLICATION NUMBER: US 60/325,277
PRIOR APPLICATION NUMBER: DATE: 2001-09-26
NUMBER OF SEQ ID NOS: 782
SOFTWARE: PatentList.pl version 3.0.4 (C) 2001 Syngenta
                                       1059 AGTGTTTGGGAGGACCCCCAGCCTTGGCAATTGAGGCCGCCCGTGCAGTCTCCCGTT 1000
AGGGTGTTTGGCGGTTTACCCCACCCGGTGCACGACGACACCACCACAATCACCAGTC 338
                                                                                                                                999 TGGCAGCGGCCGCGGCCGCTGCCATCAAAGTTGCACCCGGTGCGGCCCATATACGGGCC 940
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Publication No. US20030135888A1
GENERAL INFORMATION:
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Sequence 9, Appli Sequence 3, Appli Sequence 1, Appli Sequence 2, Appli Sequence 22, Appl Sequence 22, Appl Sequence 1536, A Sequence 1536, A Sequence 1536, A Sequence 15940, A Sequence 15940, A

Sequence 7, Appli Patent No. 5221624 Patent No. 5221624 Sequence 1, Appli Patent No. 5221624

Sequence 7,

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US-09-224-514A-9
US-08-426-599B-3
US-08-426-599B-1
US-08-482-037A-2
US-09-806-70316-28
US-09-806-708B-22
US-09-949-016-16536
US-09-949-016-12776
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1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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Listing first 45 summaries
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US-10-482-037A-1/C

| Sequence 1, Application US/08482037A |
| Patent No. S00102B |
| APPLICANTE RAY Bressan and Paul M. Hasegawa |
| TITLE OF INVENTION: OBMOCTIN Gene Promoter and Use Thereof CORRESPONDENCE ADDRESS: ADDRESSE: Thomas O. Henry STREET: Dank One Tower, Suite 3700, 111 Monument Circle CITY: Indianapolis OFFATE: Indiana COUNTRY: USA |
| COMPUTENT: USA |
| MEDIUM TYPR: Diskette, 3.50 inch, 1.4 Mb storage CONPUTENT: COMPOTER READABLE FORM: MSDOS OFFATING SYSTEM: MSDOS SOFTWARE: ASCINICATION DATA: APPLICATION NUMBER: 08/08/482,037A |
| COMPUTENT: UNIVERSE: O8/08/435 |
| CLASSIPICATION NUMBER: 08/180,428 |
| FILING DATE: June 7, 1995 |
| CLASSIPICATION NUMBER: 08/065,147 |
| FILING DATE: June 7, 1995 |
| REPRENEUR COREY NUMBER: 28,309 |
| REPRENEUR COMPOTER MAY 20, 1993 |
| ATTORNEY AGENT INFORMATION: NUMBER: 28,309 |
| REFERENCE OCCET NUMBER: 28,309 |
| RELECTION NUMBER: 28,309 |
| REFERENCE OCCET NUMBER: 28,309 |
| REFERENCE OCCET NUMBER: 28,309 |
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TYPE: Nucleotide/Amino Acid
STRANDEDNESS: Double
TOPOLOGY: Linear
MOLECULE TYPE: Genomic DNA
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1619 AAAATAAAACTCAAACAATAATATTCGTCACAAA 1586
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US-07-828-798C-4
                                                                                                                                                                                                                                                                                                                                                                STATE: N. COUNTRY:
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                                                 1 ATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAACAAT
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                                                                                                                                               2559 ATTGTTGTTGTCTCCGAATGTAGTACAAGGGTTATTACATCCTCCGGGAACCCTAAGTTCGC
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APPLICANT: Woloshuk, Charles P.
APPLICANT: Melchers, Leo S.
APPLICANT: Melchers, Leo S.
APPLICANT: Cornelissen. Bernardus J. C.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Blzen, Petrus J. M.
TITLE OF INVENTION: Antifungal Preparations, Process for Obtaining Plants with
TITLE OF INVENTION: Decreased Susceptibility to Fungi
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Pred. No. 5e-102;
0; Mismatches 86;
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IBM PC/XT/AT or compatibles
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06-APR-1992
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                                      Sequence 4, Application US/07828798C
Patent No. 5389609
                                                                                        GENERAL INFORMATION:
APPLICANT: Woloshuk, Charles P.
APPLICANT: Melchers, Leo S.
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REFERENCE/DOCKET NUMBER: U-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 708-1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SYSTEM: DOS
Word Perfect 5.1
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APPLICATION NUMBER: PCT/NL
FILING DATE: 31-05-91
ATTORNEY/AGENT INFORMATION:
NAME: MASS, CLIfford J.
REGISTRATION NUMBER: 30086
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85.4%;
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                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Ladas & Pari
STREET: 26 Weet 61st St
CITY: New York
STATE: New York
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APPLICATION NUMBER: US
FILING DATE: 06-APR-19
CLASSIFICATION: 514
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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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Best Local Similarity 85.4
Matches 502; Conservative
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MEDIUM TYPE: Diskett
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RESULT 2
US-07-828-798C-4/c
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gequence 4, Application US/08495819B

patent No. 6087161

GENERAL INFORMATION:

APPLICANT: Woloshuk, Charles P.

APPLICANT: Cornelissen, Bernardus J. C.

APPLICANT: Cornelissen, Bernardus J. C.

APPLICANT: Cornelissen, Bernardus J. C.

APPLICANT: Sela-Buurlage, Marianne B.

TITLE OF INVENTION: Antifungal Preparations, Process for TITLE OF INVENTION: With Decreased Susceptibility to Fungi

TITLE OF INVENTION: With Decreased Susceptibility to Fungi

CORRESPONDENCE ADDRESS:

ADDRESSEE: Ladas & Parry

STREET: 26 West 61st Street
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                                                                                                                                                                                                                                                                                                             Score 450.4; DB 2;
Pred. No. 5e-102;
0; Mismatches 86;
                                                                                                                                                                                                                        ORGANISM: Nicotiana tabacum
                                                                                                                                                                                                                                                                                                                 29.1%;
                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 85.45
Matches 502; Conservative
            SEQUENCE CHARACTERISTICS:
                                            LENGTH: 883
TYPE: Nucleotide
STRANDEDNESS: Double
                                                                                                                                                                CDNA
                                                                                                                                    Linear
                                                                                                                                                          MOLECULE TYPE:
ORIGINAL SOURCE:
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APPLICANT: Woloshuk, Charles P.
APPLICANT: Woloshuk, Chors, Leo S.
APPLICANT: Cornelissen, Bernardus J. C.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Elzen, Petrus J. M.
APPLICANT: Van Den Elzen, Petrus J. M
ACCCGGTGCACTGTAGGACTCCACACAGTCACCGGTTTGGCACGTACCCCTACCAGCAG 243
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAAAGCAAGAAGGAGAAAACAAAAGAAGATCTCAAGTAGCCCATGT 588
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360 Kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/828,798
FILING DATE: 06-APR-1952
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 31-05-91
ATORNEY/AGENT INFORMATION:
NAME: MASS, Clifford J.
REGISTRATION NUMBER: 30086
REFERENCE/DOCKET NUMBER: 1-8622-6
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/315,868A
FILING DATE: 09-SEP-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-315-868A-4/C
; Sequence 4, Application US/08315868A
; Patent No. 5856151
; GENERAL INFORMATION:
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TELEX: 233288
INFORMATION FOR SEQ ID NO:
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STATE: New York
COUNTRY: USA
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421 CAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCACCGCCTATCGGGGGTCGATGCTG 480
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Ladas & Parry
STREET: 26 West 61st Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (212) 708-1800
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Matches 502; Conservative
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 884
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STRANDEDNESS: Double
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: New York
STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 ATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTTAAGCTGAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 TAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGTGGCATTTCCCTCCACTTG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           422 GGTTÄGTCGGGGCGAÄAGTCATCGAÄTGTTGÄÄTCCATCÄÄCTÄÄÄGÄÄÄTGTCCCÄGÄ 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    362 AATCTAAACCACTGAATTGGTCCAAAGCGTATTCAGCCAAGGTGTTTGGTGGTTTACCCC 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTCTACCAGCAC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        302 Accedendeacretacide accedencia de la Accedentace de la Acceden
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                                                                                                                                                                                                                    360 Kb storage
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                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/495,819B
FILING DATE: 31-MAY-1995
CLASSIFICATION: 435
PRIOR APPLICATION A435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 06/315,868
FILING DATE: 30-SEPT-94
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/828,798
FILING DATE: 06-APRIL-92
PRIOR APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 06-APRIL-92
ATTORNEY,AGENT INFORMATION:
NAME: MASS, Clifford J.
REGISTRATION NUMBER: 30086
REFREENCE/POCKET NUMBER: 30086
                                                                                                                                                                                                   E: Diskette, 5.25 inch, 36(
IBM PC/XI/AT or compatibles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Nicotiana tabacum
                                                                                                                                                                                                                                                                                                                                            Word Perfect 5.1
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Best Local Similarity 85.4<sup>†</sup>
Matches 502; Conservative
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TELEX: 233288
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 883
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STRANDEDNESS: Double
                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
COMPUTER: IBM PC/XI/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: Linear
MOLECULE TYPE: CDNA
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                OPERATING SYSTEM:
SOFTWARE: Word Pe
New York
New York
                                                                                    USA
                                                                                                                            10023
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US-07-828-798C-5/c
; Sequence 5, Application US/07828798C
; Sequence 5, Application US/07828798C
; Patent No. 5389609
; GENERAL INPORMATION:
; APPLICANT: Welchers, Leo S.
; APPLICANT: Cornelissen, Bernardus J. C.
APPLICANT: Meulenhoff, Elisabeth J. S.
; APPLICANT: Van Den Elzen, Petrus J. M.
; APPLICANT: Annifungal Preparations, Process for TITLE OF INVENTION: Making Such Preparations, Process for Obtaining Plants with TITLE OF INVENTION: Decreased Susceptibility to Fungi
; VMMBER OF SEQUENCES:
; ADDRESSEE: Ladas & Parry
ADDRESSEE: Ladas & Parry
182 TGATCACCCAAGTTTGGCCTCGATCGAGACGCCGGCCACCGCCTATGGGTGTCGACGCCG 123
                                                                   CCCAGACGGTGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGTGAAAGTCA 540
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                                                                                                                                                                                           CAAAAGCAAGAAGGAGAAAACAAAAGAAGATCTCAAGTAGCCCATGT 588
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MEDIUM TYPE: Diskette, S.25 inch, 360 Kb storage COMPUTER: IBM DC/XT/AT or compatibles
COMPUTER: IBM DC/XT/AT or compatibles
COMPUTER: IBM DC/XT/AT or compatibles
SOFTATING SYSTEM: DOS
SOFTATING SYSTEM: DOS
SOFTATING PATE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/828,798C
FILING DATE: 05-APR.1992
CLASSIFICATION DATA:
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 31-05-91
ATTORNEY/AGENT INFORMATION:
NAME: Mass, Clifford J.
REGISTRATION NUMBER: 30086
REFERENCE/DCKET NUMBER: U-8622-6
TELECOMMUNICATION INPORMATION:
TELECOMMUNICATION INPORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                            29.1%; Score 450.4; DB 2; Length 85.4%; Pred. No. 5e-102; Live 0; Mismatches 86; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cornelissen, Bernardus J. C.
FILING DATE: 31-05-91

ATTORNEY/AGENT INFORMATION:
NAME: MASS, CLIFFCAG J.
REGISTRATION NUMBER: 30086
REFERENCE/DOCKET NUMBER: U-8622-6
TELECHONNICATION INFORMATION:
TELEPHONE: (212) 708-1800
TELEFAX: (212) 246-8959
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 884
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APPLICANT: Weloshuk, Charles P. APPLICANT: Melchers, Leo S. APPLICANT: Cornelissen, Berrardus
                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Nicotiana tabacum
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 85.49
Matches 502, Conservative
                                                                                                                                                                                                                                                                  TYPE: Nucleotide
STRANDEDNESS: Double
                                                                                                                                                                                                                                                                                                               TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-495-819B-5/c
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Sequence 5. Application US/08315868A

Patent No. 5856151

APPLICANT Woloshuk, Charles P.
APPLICANT Woloshuk, Leo S.
APPLICANT Melchers, Leo S.
APPLICANT Mellenhoff, Elisabeth J. S.
APPLICANT Mellenhoff, Elisabeth J. S.
APPLICANT: Wal Den Blzen, Petrue J. Marianne B.
APPLICANT: Van Den Blzen, Petrue J. M.
TITLE OF INVENTION: Antifungal Preparations, Process for TITLE OF INVENTION: Making Such Preparations, Process for Obtaining Plants with TITLE OF INVENTION: Decreased Susceptibility to Fungi
NUMBER OF SEQUENCES: 7

CORRESPONDENCE ADDRESS: ADDRESS: Ladas & Parry
STREET: 26 Mest 61st Street
                                                                                                                                                                                                                                                                                      AATCTAAGTTGTTGAACTGGTCCGAGGCGTACTCGGCTAGGGTGTTTGGCGGTTTACCCC 300
                                               GATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCCAGA 240
                                                                                                                                                                                                                         GGTTAGTCGGGGCGAAAGTCATCGGAATGTTGAATCCATCAACTAAAGAAATGTCCCCAGA 363
                                                                                                                                                                                                                                                                                                                      CCCAGACGGTGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGTGAAAGTCA 540
                                                                                                            121 TAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGTGGCATTTCCCTCCACTTG 180
                                                                                                                                                                                                                                                                                                                                                                            301 ACCCGGTGCACTGCAGGACACCACCACTACACCAGTCATGCACGAACCTCTACCAGCAC 360
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COMPUTER: IBM PC/XT/AT or compatibles
OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/315,868A
FILING DATE: 09-SEP-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/828,798
FILING DATE: 06-APR-1992
APPLICATION NUMBER: PCT/NL91/00089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 10023
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: New York
STATE: New York
COUNTRY: USA
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183
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          457 CAGGACACTGGCCATTGATATCCGCAGTACATGAGATACCCCGGGTGCACCC----AT 404
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                                                                                                                                                                                                                           302 ACCCGGTGCACTGTAGGACTCCACCACACTCACCGGTTTGGCACGTACCCCTACCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                            421 CAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCCACCGCCTATCGGGGTCGATGCTG
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                                                                                                                                                                                                                                                                                                   CATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAGGCGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAACAAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Duvick, John
APPLICANT: Buvick, John
APPLICANT: Hu, Xu
APPLICANT: Hu, Xu
APPLICANT: Hu, Caihua
TITLE CAN: Lu, Guihua
TITLE OF INVENTION: Genes and their Uses
TITLE OF INVENTION: Genes and their Uses
TITLE OF INVENTION: Genes and their Uses
CURRENT APPLICATION NUMBER: US/09/589,733C
CURRENT FILING DATE: 2000-06-08
PRIOR APPLICATION NUMBER: 60/140,646
PRIOR APPLICATION NUMBER: 60/162,904
PRIOR FILING DATE: 1999-06-23
PRIOR FILING DATE: 1999-11-01
NUMBER OF SEQ ID NOS: 41
SEQ ID NOS: 41
SEQ ID NOS: 41
SEQ ID NOS: 41
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Pred. No. 5e-35;
0; Mismatches 204;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 4, Application US/09589733C; Patent No. 6677503; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA ORGANISM: Helianthus annuus
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Best Local Similarity 60.9
Matches 332; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-589-733C-4/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-589-733C-4
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APPLICANT: Meulenhoff, Elisabeth J. S.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Elzen, Petrus J. M.
TITLE OF INVENTION: Antifungal Preparations, Process for
TITLE OF INVENTION: Making Such Preparations, Process for
TITLE OF INVENTION: With Decreased Susceptibility to Fungi
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: Ladas & Parry
STREET: 26 West 61st Street
CITY: New York
COUNTRY: USA
TION OF THE STREET: COUNTRY: USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 TAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGTGGCATTTCCCTCCACTTG 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          602 ATCTTTGTTTGAAAATTTTGAGAAAATGTAGGACCACAAGGTCCTTGTGTGCAACAAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER 10023
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb storage
AMDITTER: IBM PC/XI/AT or compatibles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/315,868
FILING DATE: 30-SEPT-94
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/828,798
FILING DATE: 06-APRIL-92
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 31-05-91
ATTORNEY/AGENT INFORMATION:
NAME: MASS, CLIEFORG J.
REGISTRATION NUMBER: 30086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC/XT/AT or compatible OPERATING SYSTEM: DOS SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
RPLICATION NUMBER: US/08/495,819B
FILING DATE: 31-AAY-1995
CLASSIFICATION: 435
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TELECOMMUNICATION INFORMATION:
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SEQUENCE CHARACTERISTICS:
LENGTH: 884
TYPF:
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STRANDENNESS: Double
TOPOLOGY: Linear
MOLECULE TYPE: CDNA
ORIGINAL SOURCE:
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Matches 502; Conservative
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ACCCGGTGCACTGCAGGACACCACCACTATCACCAGTCATGCACGAACCTCTACCAGCAC 360
                                                                    CATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAGGCGCAT 420
                                                                                                                                      421 CAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCACCGCCTATCGGGGTCGATGCTG 480
                                                                                                                                                            CCCAGACGGTGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGTGAAAGTCA 540
                               283 AGTITIGGCATIGGAGGAGGACCGTIGCAAICACCGGICIGACACIGCCTCGCCCAGAAC 224
                                                                                                   223 carcaaagrigcaarrggricgggccararacggcrcrgcrgrgrgccagcrgcgacgg 164
                                                                                                                                                                                                                                             106 cccaaacegreraregacagricirircaaaragreacacegerecarregraragreaa 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF NUMBER OF SEQUENCES: 106
CORRESPONDENCE ADDRESS:
ADDRESSEE: CIBA-GEGGY Corporation
STREET: 7 Skyline Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/181,271A
FILING DATE: 13-JAN-94
CLASSIFICATION 1435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/093,301
FILING DATE: 16-JUL-1993
PRIOR APPLICATION NUMBER: US 07/937,197
FILING DATE: 06-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 6-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-ARR-1991
PRIOR APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, Application US/08181271A
Patent No. 5614395
GENERAL INFORMATION:
APPLICANT: Ryals, John A.
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Meins, Jr., Frederick
Montoya, Alice
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Payne, George B.
Sperison, Christoph
Stinson, Jeffrey R.
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Friedrich, Leslie B.
Goodman, Robert M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alexander, Danny C.
Beck, James J.
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Ward, Eric R.
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STATE: New York
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US-08-181-271A-4/c
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APPLICANT:
APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----ATTGGTCGGGCTGAATTCCATGGGGATGTTAAATCCATCAACAAGAGAGATGT 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 373 CGACAAAGTC---CTGATTGGGTTGATTAAGTGCAAATTCAGCTAAAGTGTTAGGTGCTT 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55 AACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTTAA 114
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       235 CCCAGAAATCTAAGTTGTTGAACTGGTCCGAGGCGTACTCGGCTAGGGTGTTTGGCGGTT 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           295 TACCCCACCCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTCTAC 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       175 CACTTGGATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 159.2; DB 1; Length 900;
Pred. No. 1e-29;
0; Mismatches 193; Indels 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Elmer, James Scott
REGISTRATION NUMBER: 36,129
REFERENCE/DOCKET NUMBER: 6-19825/P1/CGC 1727
TELECOMMUNICATION INFORMATION:
                                                                                                                                                       PRIOR DATE:

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/042,847

FILING DATE: 6-APR-1993

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/632,441

FILING DATE: 21-DEC-1990

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/425,504

FILING DATE: 20-OCT 1989

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/848,506

FILING DATE: 6-MAR-1992

PRIOR APPLICATION NUMBER: US 07/68,122

FILING DATE: 27-SEP-1991

PRIOR APPLICATION NUMBER: US 07/768,122

PRIOR APPLICATION NUMBER: US 07/768,122

PRIOR APPLICATION DATA:
FILING DATE: 6-FEB-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 07/329,018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 07/580,431
FILING DATE: 7-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US 07/368,672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US 08/045,957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 7-SEP-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/:
FILING DATE: 20-JUN 1989
PRIOR APPLICATION NUMBER: US 07/
APPLICATION NUMBER: US 07/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 61.1%;
Matches 336; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 24 WAR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 06
FILING DATE: 12-APR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (919) 541-8614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 900 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear MOLECULE TYPE: CDNA
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115 GCTGACTAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGTGGCATTTCCCTC 174
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    484 ACTGTGCTGGGCÁTTGTTCGTTAATÁGGTGCTGTGCÁTCTGÁGATTACGACÁTCCTCC-- 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          295 TACCCCACCCGGTGCACTGCAGGACACCACCACTATCACCAGTCATGCACGAACCTCTAC 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           604 ATCTTTCCTTAAAAATCTCGACAAATCAGTAGGCCCACATGATCCAGGCCCATTTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            55 AACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----atriccicciccicaarrccarccarccarcaarccarcaacaacaacaacarcr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   175 CACTIGGATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10.3%; Score 159.2; DB 1; Length 900;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. le-29;
0; Mismatches 193;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S-19825/P1/CGC 1727
                                                                                        PRICATION NUMBER: US 07/165,667
PRING DATE: 8-MAR-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/042,847
FILING DATE: 6-AR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/632,441
FILING DATE: 21-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/848,506
FILING DATE: 20-OCT 1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/848,506
FILING DATE: 6-MAR-1932
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/68,122
FILING DATE: 27-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/580,431
FILING DATE: 24-MAR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/328,018
FILING DATE: 24-MAR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/328,018
FILING DATE: 24-MAR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/328,018
FILING DATE: 24-MAR-1989
PRIOR APPLICATION NUMBER: US 08/045,957
FILING DATE: 12-APR-1993
ATTORNEY/AGENT INFORMATION:
NAME: Elmer, James Scott
PRIOR APPLICATION DATE: US 07/305,566
PRIOR APPLICATION DATE: APPLICATION NUMBER: US 07/16
FILING DATE: 8-MAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36,129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: STELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 61.1%;
Matches 336; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Elmer, James Scott
REGISTRATION NUMBER: 36,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (919)541-8614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO: 4
SEQUENCE CHARACTERISTICS:
LENGTH: 900 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-449-315-4
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                      316 TICCATAGCCTIGACACTCTAACATCCCGTTACAGTCTCCAGTCTCCAGTTTACCTCGGC 257
                                                                                                355 CAGCACCATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAG 414
                                                                                                                                            256 cacreccarceaagriccaarregirceaccecaareceaecereeacreircereer 197
                                                                                                                                                                                                                                        196 rcacarraardcrccaadarrdccrrcagrccadccccrccrccrccrc---caadagd 140
                                                                                                                                                                                                                                                                                                                                      139 CCGCGGCCCAGACTGTGTAGGTGCATTTGTTGACAATGTCAAAAGTGGCAGCATGAGTAA 80
                                                                                                                                                                                              415 GCGCATCAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCCACCGCCTATCGGGGTCG
                                                                                                                                                                                                                                                                                         475 ATGCTGCCCAGACGGTGTATGGACAGTTGTTGCGTACTCGATAGTGGCATAAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Williams, Shericca C.
TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC Compatible
COMPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/449,315
FILING DATE: 24-AM2-1995
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/181,271
FILING DATE: 13-JAN-94
APPLICATION NUMBER: US 08/093,301
FILING DATE: 16-JUL-1993
PRIOR APPLICATION NUMBER: US 08/093,301
FILING DATE: 6-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/678,378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3: CIBA-GEIGY Corporation 7 Skyline Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Goodman, Christian
Harms, Christian
Meins, Jr., Frederick
Montroya, Alice
Moyer, Mary B.
Neuhaus, Jean-Marc
Payne, George B.
Sperison, Christoph
Stinson, Jeffrey R.
Uknes, Scott J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-449-315-4/c
; Sequence 4, Application US/08449315
Patent No. 5650505
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Duesing, John H.
Friedrich, Leslie B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ryals, John A.
Alexander, Danny C.
Beck, James J.
                                                                                                                                                                                                                                                                                                                                                                                     535 AAGTCACAAA 544
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                    79 CÁGCTÁCÁÁA 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Hawthorne
STATE: New York
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
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APPLICANT:
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APPLICANT;
APPLICANT;
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355 CAGCACCATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAG 414
                                                                                    256 CACTGCCATCGAAGTTGCAATTGGTTCGACCCCAAATGCGAGCCTGGACTGTTCCTGGGT 197
                                                                                                                           415 GCGCATCAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCACCGCCTATCGGGGTCG 474
                                                                                                                                                                                                 475 ATGCTGCCCAGACGGTGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGTGA 534
                                                                                                                                                                                                                                  139 cceceecceacacrereraserscarrirerreacaarercaaaacreecaccareagraa 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Williams, Shericca C.
TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 1053Z
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/444,803
FILING DATE: 19-MAY-1995
CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/181,271
FILING DATE: 13-0AN-94
APPLICATION NUMBER: 08 08/093,301
FILING DATE: 16-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-APR-1991
PRIOR APPLICATION NUMBER: US 07/678,378
PRIOR APPLICATION NUMBER: US 07/678,378
PRIOR APPLICATION DATA:
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STREET: 7 Skyline Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Friedrich, Leslie B.
Goodman, Robert M.
Harms, Christian
Meins, Jr., Frederick
Montoya, Alice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Moyer, Mary B.
Neuhaus, Jean-Marc
Payne, George B.
Sperison, Christoph
Stinson, Jeffrey R.
                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4, Application US/08444803
Patent No. 565414
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                Ryals, John A.
Alexander, Danny C.
Beck, James J.
Duesing, John H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Uknes, Scott J.
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                                                                                                                                                                                                                                                                     535 AAGTCACAAA 544
                                                                                                                                                                                                                                                                                                        CAGCTACAAA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: New York
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                            RESULT 11
US-08-444-803-4/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----ATTGGTCGGCTGAATTCCATGGGGATGTTAAATCCATCAACAAGAGATGT 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        235 CCCAGAAATCTAAGTTGTTGAACTGGTCCGAGGCGTACTCGGCTAGGGTGTTTGGCGGTT 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            373 CGACAAAGTC---CTGATTGGGTTGATTAAGTGCAAATTCAGCTAAAGTGTTTAGGTGCTT 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              295 TACCCCACCCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTCTAC 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         115 GCTGACTAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGTGGCATTTCCCTC 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           484 actigrecresecátrierregriaarasosecresecatereasoarraceacátecres 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55 AACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  175 CACTTGGATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACAT----GGACCTTGGGTGC
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Pred. No. 1e-29;
0; Mismatches 193;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 36,129
REFERENCE/DOCKET NUMBER: S-19825/P1/CGC 1727
TELECOMMUNICATION INFORMATION:
                                                                                             FILING DATE: 8-MAR-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/042,847
FILING DATE: 6-ARR-1993
PRIOR APPLICATION NUMBER: US 07/632,441
FILING DATE: 21-DEC-1990
PROOR APPLICATION DATA:
APPLICATION NUMBER: US 07/425,504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 07/580,431
FILING DATE: 7-SEP-1990
REIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/368,672
FILING DATE: 20-JUN-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/329,018
                                                                                                                                                                                                                                                                                              FILING DATE: 20-OCT 1989
PRIOR APPLICATION DATA:
APPLICATION TO APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 07/848,506 FILING DATE: 6-MAR-1992 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/768,122 FILING DATE: 27-SRP-1991 PRIOR APPLICATION DATA:
MBER: US 07/305,566
6-FEB-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US 08/045,957
                                                                          US 07/165,667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 24-MAR-1989
PRIOR APPLICATION DATA:
APPLICATION WHERE: US 08//
FILING DATE: 12-APR-1993
ATTORNEY/AGRAT INFORMATION:
NAME: BIMEY, James SCOLT
REGISTRATION NUMBER: 36,12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10.3%;
61.1%;
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TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (919)541-86.
TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 61.1<sup>3</sup>
Matches 336; Conservative
                   FILING DATE: 6-FEB-1
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
APPLICATION NUMBER:
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316 TTCCATAGCCTTGACACTCTAACATCCCGTTACAGTCTCCAGTCTCACAATTACCTCGGC 257
                                                        CAGCACCATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAG 414
                                                                                          256 cácreccárccaagriecaarregirccaccccaaareccagecregacretrecreger 197
                                                                                                                                                               196 reachtrahiderechanningsechangrichaetekanderechenterechen---danamen 140
                                                                                                                                                                                                                           139 CCGCGGCCCAGACTGTGTAGGTGCATTTGTTGACAATGTCAAAAGTGGCAGCATGAGTAA 80
                                                                                                                               415 GCGCATCAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCCACCGCCTATCGGGGTCG
                                                                                                                                                                                                     475 ATGCTGCCCAGACGGTGTATGGACAGTTGTTGCGTACCTCGATAGTGCCAGCATAAGTGA
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TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
NUMBER OF SEQUENCES: 106
ADDRESSEE: CIBA-GEIGY Corporation
STREET: 7 Skyline Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
FILING DATE: 24-MAY-1995
CLASSIFICATION: 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 24-MAY-1995
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/181,271
FILING DATE: 13-JAN-94
APPLICATION NUMBER: US 08/093,301
FILING DATE: 16-UU-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-APR-1991
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Harms, Christian
Meins, Jr., Frederick
Montcya, Alice
Moyer, Mary B.
Neuhaus, Jean-Marc
Payne, George B.
Sperison, Christoph
Stinson, Jeffrey R.
Uknes, Scott J.
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Patent No. 5689044
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Friedrich, Leslie B.
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Alexander, Danny C.
Beck, James J.
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COMPUTER READABLE FORM:
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COUNTRY: USA
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55 AACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTTAA 114
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                                                                                                           PRICE DATE: B-FART.1988

PRICATION NUMBER: US 08/042,847

FILING DATE: 6-APR.1993

FILING DATE: 6-APR.1993

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/632,441

FILING DATE: 21-DEC-1990

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/848,506

FILING DATE: 6-MAR-1992

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/768,122

FILING DATE: 27-SEP-1991

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/580,431

FILING DATE: 27-SEP-1991

FILING DATE: 27-SEP-1991

PRIOR APPLICATION NUMBER: US 07/580,672

FILING DATE: 20-UN-1989

PRIOR APPLICATION NUMBER: US 07/368,672

FILING DATE: 24-MAR-1989

PRIOR APPLICATION NUMBER: US 07/368,672

FILING DATE: 24-MAR-1989

PRIOR APPLICATION NUMBER: US 07/368,672

FILING DATE: 24-MAR-1989

PRIOR APPLICATION NUMBER: US 07/369,673

FILING DATE: 24-MAR-1989

PRIOR APPLICATION NUMBER: US 07/329,018

FILING DATE: 24-MAR-1989

PRIOR APPLICATION NUMBER: US 08/945,957
                                                            APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-MAR-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Elmer, James Scott
REGISTRATION NUMBER: 36,129
REFERENCE/DOCKET NUMBER: S-1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 12-APR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 4
SEQUENCE CHARACTERISTICS:
LENGTH: 900 base pairs
TYPE: nucleic acid
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FILING DATE: 6-FEB-1989 PRIOR APPLICATION DATA:
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Best Local Similarity 61.1
Matches 336; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear MOLECULE TYPE: CDNA
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linear
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MOLECULE TYPE:
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                                                                                             CAGCACCATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAG 414
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APPLICANT: Goodman, Robert M.

APPLICANT: Stinson, Jeffrey R.

TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC TITLE OF INVENTION: DAS SEQUENCES AND USES THEREOF NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS:
ADDRESSEE: CIBA-CPTT-
STREP
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/456,265A
FILING DATE: 31-MAY-95
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/181,271
FILING DATE: 13-JAN-1994
PRIOR APPLICATION NUMBER: US 08/093,301
FILING DATE: 15-JAN-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/093,301
FILING DATE: 16-JUL-1993
PRIOR APPLICATION DATA:
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PILING DATE: 1-APR-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/305,566
FILING DATE: 6-FEB-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/165,667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           איי שואיט 17/632,441 באים שובער US 07/632,441 באבער 21-DEC-1990 PRIOR APPLICATION DATA:
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FILING DATE: 8-MAR-1988
ADDITORNOON
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FILING DATE: 6-APR-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/08456265A Patent No. 5767369 GENERAL INFORMATION:
APPLICANT: Alexander, Danny C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           535 AAGTCACAAA 544
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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CITY: Tarrytown
STATE: New York
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US-08-456-265A-4/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCCATAGCCTTGACACTCTAACATCCCGTTACAGTCTCCAGTCTCACAATTACCTCGGC 257
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                                          APPLICATION NUMBER: US 07/768,122
FILING DATE: 27-SEP-1991
RELORATION NUMBER: US 07/560,431
APPLICATION NUMBER: US 07/560,431
FILING DATE: 7-SEP-1990
FILING DATE: 20-UNU-1999
FILING DATE: 20-UNU-1999
FILING DATE: 24-MAR-1989
FILING DATE: 24-MAR-1989
FILING DATE: 12-ARR-1989
FILING DATE: 12-ARR-1989
APPLICATION NUMBER: US 08/45,957
FILING DATE: 12-ARR-1989
APPLICATION NUMBER: 38,241
FILING DATE: 12-ARR-1989
APPLICATION NUMBER: 38,241
FILING DATE: 38,241
REFERENCE/DOCKET NUMBER: S-19825/FI/CGC 1727/DIVIO
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6-MAR-1992
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Matches 336; Conservative
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                        PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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Beck, James J.
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Beck, James J.
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Beck, James J.
APPLICANT
Goodman, Robert M.
APPLICANT
Harms, Christian
APPLICANT
MONOYAN, Alice
APPLICANT
MONOYAN, Alice
APPLICANT
Neuhaus, Jean-Marc
APPLICANT
Sperison, Jeffrey B.
APPLICANT
Sperison, Christoph
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Sperison, Jeffrey R.
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Sperison, Jeffrey R.
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Sperison, Christoph
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Sperison, Christoph
APPLICANT
Sperison, Jeffrey R.
APPLICANT
SPERISON
APPLICANT
TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
NUMBER OF SEQUENCES: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
SUBCTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/455,416
FILING DATE: 13-JAN-94
APPLICATION NUMBER: US 08/093,301
FILING DATE: 16-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-NOV-1992
PRIOR APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-APR-1991
PRIOR APPLICATION NUMBER: US 07/678,378
FILING DATE: 6-FEB-1989
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: 6-FEB-1989
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-FARR-1988
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-PARR-1988
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-PARR-1988
APPLICATION NUMBER: US 07/632,441
FILING DATE: 21-DEC-1990
PRIOR APPLICATION DATA:
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FILING DATE: 6-APR-1993
                                                                                                                                                                                                            Sequence 4, Application US/08455416
Patent No. 5777200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: CIBA-GEIGY C
STREET: 7 Skyline Drive
CITY: Hawthorne
STATE: New York
                                                                    535 AAGTCACAAA 544
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                                                                                                            79 CAGCTACAAA 70
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                                                                                                                                                                          RESULT 14
US-08-455-416-4/C
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115 GCTGACTAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGTGCATTTCCCTC 174
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        355 CAGCACCATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAG 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256 cácreccárceaacriecaarrecriceáccecaaareceaeceregacretrecreger 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               196 reacarraargerecaagarrageergagregageegeergeerecereer---gaagag 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              475 ATGCTGCCCAGACGGTGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGTGA 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        604 ArctiticcitaAAAAArcticGACAAATCAGTAGGCCCACATGATCCAGGCCCATTTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          55 AACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       426 -----Arriggredgeergaarrecargggargrraaarcearcaacaagagargr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    373 CGACAAAGTC---CTGATTGGGTTGATTAAGTGCAAATTCAGCTAAAGTGTTAGGTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               295 TACCCCACCCGGTGCACTGCAGGACACCACCACTATCACCAGTCATGCACGAACCTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    415 GCGCATCAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCCACCGCCTATCGGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 544 AACAATATTCATTGGTTTTTTATCACAGTACATGGGTTGTTACATCCACCTTGTGTTTTCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACAT-----GGACCTTGGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         235 CCCAGAAATCTAAGTTGTTGAACTGGTCCGAGGCGTACTCGGCTAGGGTGTTTGGCGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0, Mismatches 193; Indels 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 900;
                                                                                                               PALOK APPLICATION NUMBER: US 07/848,506
FILING DATE: 6-MAR-1992
PRIOR APPLICATION NUMBER: US 07/768,122
FILING DATE: 37-SEP-1991
PRIOR APPLICATION NUMBER: US 07/768,122
FILING DATE: 37-SEP-1990
PRIOR APPLICATION NUMBER: US 07/580,431
FILING DATE: 20-JUN-1989
PRIOR APPLICATION NUMBER: US 07/368,672
FILING DATE: 20-JUN-1989
PRIOR APPLICATION NUMBER: US 07/329,018
FILING DATE: 24-MAR-1989
PRIOR APPLICATION NUMBER: US 08/045,957
FILING DATE: 24-PRA-1989
PRIOR APPLICATION NUMBER: US 08/045,957
FILING DATE: 12-APR-1989
PRIOR APPLICATION NUMBER: US 08/045,957
FILING DATE: 12-APR-1989
REGISTRATION NUMBER: 36,129
REGISTRATION NUMBER: 36,129
REFERENCE/DOCKET NUMBER: S-19825/F1/CGC 1727
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 159.2; DB 1;
Pred. No. 1e-29;
ELLING DATE: US 07/425,504 PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 10.3%;
Best Local Similarity 61.1%;
Matches 336; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: (919)541-861
TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 900 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: CDNA
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US-08-455-416-4
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US-08-455-244-4
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TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC TITLE OF SEQUENCES: 106
CORRESPONDENCE ADDRESS:
STRRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/455,244
FILING DATE: 31-MAY-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/US/195,211
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US (181,271
FILING DATE: 13-JAN-94
APPLICATION NUMBER: US (8/093,301
FILING DATE: 16-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US (0/937,197
FILING DATE: 1-APPL-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US (0/678,378
FILING DATE: 1-APPL-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US (0/678,789
FILING DATE: 6-FEB-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US (0/165,667
FILING DATE: 6-FEB-1999
PRIOR APPLICATION NUMBER: US (0/165,667
FILING DATE: 6-APR-1993
PRIOR APPLICATION NUMBER: US (0/165,667
FILING DATE: 6-APR-1993
PRIOR APPLICATION NUMBER: US (0/165,667
FILING DATE: 1-APPL-1993
PRIOR APPLICATION NUMBER: US (1/632,441
FILING DATE: 21-DEC-1990
PRIOR APPLICATION NUMBER: US (1/632,441
FILING DATE: 21-DEC-1990
                                                                                                                                                                                                                                 Ryals, John A.
Alexander, Danny C.
Beck, James J.
Duesing, John H.
Friedrich, Leslie B.
Goodman, Robert M.
Harms, Christian
Meins, Jr., Frederick
Montoya, Alice
                                                                                                                                                                         Sequence 4, Application US/08455244
Patent No. 5789214
GENERAL INFORMATION:
APPLICANT: Ryals, John A.
                                                                                                                                                                                                                                                                                                                                                                                               Moyer, Mary B.
Neuhaus, Jean-Marc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 10532
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
                                                                                                                                                                                                                                                                                                                                                                                                                                 Payne, George B.
                                                   535 AAGTCACAAA 544
                                                                                        79 CAGCTACAAA 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 7 Skyline
CITY: Hawthorne
STATE: New York
COUNTRY: USA
                                                                                                                                                            US-08-455-244-4/c
                                                                                                                                                                                                                                                   APPLICANT:
APPLICANT:
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APPLICANT:
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APPLICANT:
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APPLICANT:
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APPLICANT:
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APPLICANT:
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55 AACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTTAA 114
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        115 GCTGACTAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGCGTGGCATTTCCCTC 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 484 ACTGTGCTGGGCATTGTTCGTTAATAGGTGCTGTGCATCTGAGATTACGACATCCTCC-- 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----ATTGGTCGGCTGAATTCCATGGGATGTTAAATCCATCAACAAGAGATGT 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             35 CAGCACCATCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAG 414
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        415 GCGCATCAATGACCCACGTTTGGCCTCGATCGAGACGTCGGCCACCGCCTATCGGGGTCG 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       475 ATGCTGCCCAGACGGTGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGTGA 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  373.CGACAAAGTC---CTGATTGGGTTGATTAAGTGCAAATTCAGCTAAAGTGTTAGGTGCTT 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 295 TACCCCACCCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTCTAC 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          316 TTCCATAGCCTTGACACTCTAACATCCCGTTACAGTCTCCAGTCTCACAATTACCTCGGC 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       604 ATCTTTCCTTAAAAATCTCGACAAATCAGTAGGCCCACATGATCCAGGCCCATTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACAT----GGACCTTGGGTGC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Elmer, James Scott
REGISTRATION NUMBER: 36,129
REFERENCE/DOCKET NUMBER: S-19825/P1/CGC 1727
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919)541-8614
                                                                                                                        APFLICATION DATE: 6-MAK-122.
FRION APPLICATION DATA:
APPLICATION NUMBER: US 07/768,122
FILING DATE: 27-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/580,431
TITUT DATE: 7-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 07/368,672
FILING DATE: 20-JUN-1989
PRIOR APPLICATION DATE:
APPLICATION NUMBER: US 07/329,018
FILING DATE: 24-MAR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/045,957
FILING DATE: 12-APR-1993
ATTORNEY AGENT INFORMATION:
FILING DATE: 20-OCT 1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900 base pairs
                                                                                                                                                                                                                                                                                                                                       FILING DATE: 7-SEP-19
PRIOR APPLICATION DATA:
APPLICATION NUMBER: U
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STRANDEDNESS: single
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Scoring table:

Searched:

Database

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Sequence 4, Appli
Sequence 103619,
Sequence 103619,
Sequence 11361, Ap
Sequence 389, App
Sequence 319, App
Sequence 7737, Ap
Sequence 10107, A
Sequence 10107, A
Sequence 10106, A
Sequence 109, App
Sequence 10106, A
Sequence 10104, A
Sequence 10104, A
Sequence 5182, App
Sequence 5977, A
Sequence 59877, A
Sequence 1624, App
Sequence 1624, App
Sequence 1624, App
Sequence 1624, App
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; Sequence 2, Application US/10051307
; Publication No. US20020170095A1
; GENERAL INFORMATION:
; APPLICANT: DATA, ZITUA
; APPLICANT: SH, LIFANG
; TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF
; TITLE OF INVENTION GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF
; FILE REPERENCE: 059440/0141
; CURRENT APPLICATION NUMBER: US/10/051,307
; FRIOR APPLICATION NUMBER: 2002-01-22
; FRIOR FILING DATE: 2001-01-23
; NUMBER OF SEQ ID NOS: 14
; SEQ ID NO 2
: LENGTH: 1598
Sequence 2118, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Appli
Sequence 19747, A
                    Sequence 2118, Ar
Sequence 334, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTAATACGACTCACTATAGGGCACGCGTGGTCGACGGCCCGGGCTGGTATCTTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 13; Length 1598;
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              1 US-09-938-842A-2118
US-09-770-445-334
US-09-770-445-334
US-10-636-026-4
US-10-636-026-4
US-10-424-599-3631
US-10-424-599-3631
US-10-424-599-7736
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US-09-767-791-806
US-10-437-963-15621
US-09-770-791-806
US-10-437-963-15621
US-10-437-963-15621
US-10-175-389-9
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Best Local Similarity 100.0%; Pred. No. 0;
Matches 1598; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
CRGANISM: Solanum tuberosum
US-10-051-307-2
                                                                                                                                                                           1006
9901
9901
12155
10050
10050
10020
10020
10030
8053
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1: \cgn2 \( \bigcordata/1 \) Pubbna/USO7 \( \bigcordata/1 \) Pubbna/USO6 \( \bigcordata/1 \) Pubbna/USO8 \( \bigcordata/1 \) Pubbna/USO9 \( \bigcordata/1 \) PUBCOMB \( \bigcordata/1 \) Pubbna/USO9 \( \bigcordata/1 \) PUBCOMB \( \bigcordata/1 \) PUBC
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US-10-051-307-3
US-10-913-948-1
US-10-341-961A-371
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                                                                                                                                                                                                                                                                                                                                                   6054689 seqs, 3103772919 residues
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Copyright (c) 1993 - 2005
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	RESULT 2 US-10-903-948-2 ; Sequence 2, Application US/10903948 ; Publication No. US20650065324A1 ; GENERAL INFORMATION: ; APPLICANT: DAI, ZIYU ; APPLICANT: BHI, ZIYU ; APPLICANT: BHI, ZIYU ; APPLICANT: GRI, ZIFANG ; TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF ; TITLE REFERENCE: 059440/0141 ; CURRENT APPLICATION NUMBER: US/10/903,948 ; CURRENT APPLICATION NUMBER: US/10/051,307 ; PRIOR APPLICATION NUMBER: 60/263,224 ; PRIOR APPLICATION NUMBER: 60/263,224 ; PRIOR FILING DATE: 2001-01-23 ; PRIOR FILING DATE: 2001-01-23 ; NUMBER OF SEQ ID NOS: 14 ; SOFTWARE: Patentin Ver. 2.1 ; SEQ ID NO 2 ; LENGTH: 1598 ; CRGANISM: Solanum tuberosum US-10-903-948-2	Query Match 100.0%; Score 1598; DB 21; Length 1598; Best Local Similarity 100.0%; Pred. No. 0; 0; Indels 0; Gaps 0; Matches 1598; Conservative 0; Mismatches 0; 0; Indels 0; Gaps 0; Qy 1 GTAATACGACTCACTATAGGGCACGCGGGCGGGCGGGCTGGTATCTTGTTTGA 60 0 Indels 1
61 AAAAATTGGAAAAGAACGTAGGACCACATGGACCATGGGGGCAACAATATTGTTGTTGTCCTC 120 61 AAAAATTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAACAATATTGTTGTTCCTC 120 121 CAAATGGGTACAAGGATTGTTACATCCTCCGGGTACTTTAAGCTGCACTAGGACATTCAC 180 122 CAAATGTGGTACAAGGATTGTACATCCTCCGGGTACTTTAAGCTGGACATTCAC 180 123 CAAATGTGGTACAAGGATTGAATTGTTACATCCTCCACTTGGATTAGTCGGGG 240 181 CATTTATATTTTGCCGTGCATTGAATTGTTGACATTTCCCTCCACTTGGATTAGTCGGGG 240 182 CATTATATTTTAAAATTCAATTCAATTGTGGCATTTCCCTCCACTTGGATTAGTCGGGG 240 183 CATTATATTTTAAAATTCAATTCAACTAAAAATGTCCCACTTGGATTAGTCGGGG 240 184 CGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCCACTTGGATTAGTCGGGG 240 185 CGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCCACTTGGATTAGTCGGGG 240 186 CGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCCACTTGGATTAGTCGGGG 240 187 CGAAAGTCATCGGTAATTAAATCCATCAAAGAAATGTCCCACTAGGAATCTAAGTTGT 300 180 TGAACTGGTACATTAAATCCATCAACTAAAGAAATGTCCCACACACCACCCGGTGCACT 360 181 GCAGGACCACCACAATCACCAGGTGATTGGACGTTTGGTGGTTTGCCCCACCCCGGTGCACT 360 181 GCAGGACCACCACAATCACCAGGTGATGCACGACCACCACCCCACACCACCACACACA	541 TGGACAGTTGTTGGCGGTACTCGATAGTGACATAAGTCAAAAGCCAGA 600 541 TGGACAGTTGTTGGCGGTACCTCGATAGTGACAGAAGTCACAAAAGCCAGA 600 541 TGGACAGTTGTTGGCGGTACCTCGATAGTGACTTAGTGAAAGTCACAAAAGCCAGA 600 601 AGGGAGAAACCAAAAGAAGATCTCAAGTAGCCCATGTTTGTT	901 AACGTGACGGAATTTTCTTAAAACTAAAAAAGCACCTATTTTCACATTTTTCG 960

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APPLICANT: SHI, LIFANG
APPLICANT: SHI, LIFANG
APPLICANT: HOWER, BRIAN S.

TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF
FILE REFERENCE: 059440/0141
CURRENT APPLICATION NUMBER: US/10/051,307
CURRENT FILING DATE: 2001-01-22
PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PATCHIN VEY: 2.1
SEQ ID NO 3
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      1557 ATGGAGGCAAATAAGTCTATGGTGAAGTTGGTTGCTTTC 1595
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93.8%; Pred. No. 2.3e-283;
ive 0; Mismatches 87; I.
                                                                                     ; Sequence 3, Application US/10051307; Publication No. US20020170095A1; GENERAL INFORMATION:
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OTHER INFORMATION: a, t, c
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Matches 1456; Conservative
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    THEREOF
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                                                                                                                                                                                                                                   Length 1546
TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE TURENT APPLICATION NUMBER: US/10/903,948
CURRENT ETLING DATE: 2004-07-30
PRIOR APPLICATION NUMBER: US/10/051,307
PRIOR APPLICATION NUMBER: G0/263,224
PRIOR PILING DATE: 2002-01-23
PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ ID NOS: 14
SEQ ID NO 3
LENGTH: 1546
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Pred. No. 2.3e-283;
0; Mismatches 87;
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93.8%;
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                                                                                                                                                                          NAME/KEY: modified_base
LOCATION: (1248)
CTHER INFORMATION: a, t, c
US-10-903-948-3
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Best Local Similarity 93.8
Matches 1456; Conservative
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     TTATATGTGGGACAAATTATTTTGGTACTTTATATATAGGGATATGGCGGCTTTTTGGCAC
                 TACGGATATTAATCGTATTATAACAATATCATACTTTGACTAATTATAAACGAAATAT
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                                                                                               ATTACAATATGATTTGGTAAACGTTGAGGTGGAAAAATGTATAAGAGCCGCCTAATAATT
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US-10-903-948-3
US-10-903-948-3
Publication No.;
GENERAL INFORM?
APPLICANT: DAI;
APPLICANT: BI;
APPLICANT: HG
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Sequence 3, Application US/10903948
Publication No. US20050005324A1
GENERAL INFORMATION:
APPLICANT: DAI, ZIYU
APPLICANT: SHI, LIFANG
APPLICANT: HOOKER, BRIAN S.

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Sequence 2118, Application US/09938942A

Sequence 2118, Application US/09938942A

Sequence 2118, Application US/09938942A

GENERAL INFORMATION:

APPLICANT: Harper, Jeff

APPLICANT: Wang, Xun

APPLICANT: Wang, Xun

TITLE OF INVENTION: SAME, AND METHODS OF USE

TITLE OF INVENTION: SAME, AND METHODS OF USE

TITLE OF INVENTION: SAME, US/09/938,842A

CURRENT APPLICATION NUMBER: US 60/227,866

PRIOR FILING DATE: 2000-08-24

PRIOR FILING DATE: 2000-08-24

PRIOR FILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-01-6

PRIOR FILING DATE: 2001-01-6-22

NUMBER OF SEQ ID NOS: 5379
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Best Local Similarity 78.1%; Pred. No. 6.5e-54;
Matches 350; Conservative 0; Mismatches 98; Indels 0;
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  CURRENT FILING DATE: 2003-01-14

PRIOR APPLICATION NUMBER: 60390249

PRIOR FILING DATE: 2002-06-20

PRIOR APPLICATION NUMBER: 60261029

PRIOR FILING DATE: 2001-01-11

PRIOR FILING DATE: 2001-01-11

PRIOR FILING DATE: 2002-01-14

NUMBER OF SEQ ID NOS: 395

SOFTWARE: PATENTIN VERSION 3.1

SEQ ID NO 371

LENGTH: 510
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US-10-341-961A-371
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Sequence 371, Application US/20340006787A1

GENERAL INROWATION:

APPLICANT: Curagen Corporation

APPLICANT: Curagen Corporation

APPLICANT: Crasta, Oswald

APPLICANT: Swirsky, Peter

APPLICANT: Swirsky, Peter

APPLICANT: Mysore, Kiran

APPLICANT: Martin, Gospala

APPLICANT: Martin, Gospala

APPLICANT: Martin, Gospala

TITLE OF INVENTION: PLANT DEFENSE-RELATED GENES REGULATED IN RESPONSE TO PLANT-PATHOC

TITLE OF INVENTION: INTERACTIONS AND METHODS OF USE

FILE REFERENCE: BTT.67A2

CURRENT APPLICATION NUMBER: US/10/341,961A
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ATATAAACTCTGTAACGTGACGGAATTTTTCTTAAAACTAAATATTAAAAAGCAGCTATT 947
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Pred. No. 7.5e-31;
0; Mismatches 202; Indels
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Matthew, Abraham V.
Ledford, Brooke L.
Woessner, Jeffrey P.
Haas, William David
Garcia, Carlos A.
; LENGTH: 735
TYPE: DNA
; ORGANISM: Arabidopsis thaliana
US-09-938-8428A-2118
                                                                                                   11.7%;
62.4%;
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Rameaka, Joshua G.
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An, Yong-Qiang
Hamilton, Carol M
Price, Jennifer L
Raines, Tracy M.
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Allen, Keith
Hoffman, Neil
                                                                                                                                             Matches 367; Conservative
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Slader, Ted
                                                                                                     Query Match
Best Local Similarity
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| Sequence 2118, Application US/09938842A
| Publication No. US20040009476A9
| GENERAL INFORMATION:
| APPLICANT: HATPEr, Joef
| APPLICANT: Kreps, Joel
| APPLICANT: Kreps, Joel
| APPLICANT: Wang, Xun
| APPLICANT: Wang, Xun
| APPLICANT: Wang, Xun
| APPLICANT: Wang, Xun
| APPLICANT: Mang, Xun
| APPLICANT: Wang, AND METHODS OF USE
| TITLE OF INVENTION: SAME, AND METHODS OF USE
| FILE REFERENCE: SCRIP1300-3
| CURRENT APPLICATION NUMBER: US/09/938,842A
| CURRENT FILING DATE: 2001-08-24
| PRIOR APPLICATION NUMBER: US 60/264,647
| PRIOR PILING DATE: 2001-01-16
| PRIOR PILING DATE: 2001-01-16
| PRIOR PILING DATE: 2001-01-16
| PRIOR FILING DATE: 2001-06-22
| NUMBER OF SEQ ID NOS: 5379
| SEQ ID NO 2118
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                                                                                                                        Score 186.8; DB 9;
Pred. No. 7.5e-31;
0; Mismatches 202;
                                     TYPE: DNA
ORGANISM: Arabidopsis thaliana
                                                                                                                        11.7%;
62.4%;
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Best Local Similarity 62.4
Matches 367; Conservative
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SEQ ID NO 2118
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HAPLICANT: Hurban, Patrick

TITLE OF INVENTION: Expressed Sequences of Arabidopsis;
TITLE OF INVENTION: thaliana

TITLE OF INVENTION: thaliana

FILE REFERENCE: 2023US (PARA-012FRV)

CURRENT APPLICATION NUMBER: US/09/770,445

CURRENT PILING DATE: 2001-01-26

PRIOR PILING DATE: 2000-01-27

NUMBER OF SEQ ID NOS: 999

SEQ ID NOS: 999

SEQ ID NO 334

LENGTH: 950
                                                                                                                                                                                                                                                                                             Query Match 11.7%; Score 186.8; DB 9; Length Best Local Similarity 62.4%; Pred. No. 8.4e-31; Matches 367; Conservative 0; Mismatches 202; Indels
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Publication No. US20040073971A1
GENERAL INFORMATION:
APPLICANT: Craney, Dennis L.
APPLICANT: Duvick, Jon
APPLICANT: Hu, Xu
APPLICANT: Lu, Xu
APPLICANT: Lu, Xu
APPLICANT: Lu, Sunta
TITLE OF INVENTION: Sunflower Anti-Pathogenic Proteins and
TITLE OF INVENTION: Genes and their Uses
                                                                                                                                                                                                                        TYPE: DNA ORGANISM: Arabidopsis thaliana
                                                                                                                                                                                                                                             ; ORGANISM: Ara)
US-09-770-445-334
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US-10-636-396-4/c
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Publication No. US20040111761A1

GENERAL INFORMATION:

APPLICANT: Bidney, Dennis L.

APPLICANT: Crasta, Oswald R.

APPLICANT: Duvick, Jon

APPLICANT: Lu, Ginhua

TITLE OF INVENTION: Sunflower Anti-Pathogenic Proteins and

TITLE OF INVENTION: Genes and their Uses

FILE REFERENCE: 5718-90

CURRENT APPLICATION NUMBER: US/10/636,026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches 187; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                          10.6%; Score 168.8; DB 18; 61.3%; Pred. No. 7.5e-27;
FILE REFERENCE: 5718-90
CURRENT APPLICATION NUMBER: US/10/636,396
CURRENT FILING DATE: 2003-08-07
FRIOR APPLICATION NUMBER: US/09/589,733C
PRIOR FILING DATE: 2000-06-08
PRIOR PILING DATE: 1999-06-23
PRIOR PILING DATE: 1999-06-23
PRIOR APPLICATION NUMBER: 60/140,646
PRIOR PILING DATE: 1999-11-01
NUMBER OF SEQ ID NOS: 41
SEQ ID NO 4
LENGTH: 875
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Best Local Similarity 61.3
Matches 309; Conservative
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Sequence 36.321, Application US/10424599
Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Ea Rosa Thomas J
APPLICANT: Application Vibra
APPLICANT: Application Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223) B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQUENCE: 2003-04-28
SEQ ID NO 36321
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                                                                                                                                                       Gaps
                                                                                                                                                     7;
                                                                                                         Score 161.2; DB 18; Length 909;
Pred. No. 3.6e-25;
0; Mismatches 193; Indels 7;
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; OTHER INFORMATION: Clone ID: PAT_MRT3847_132800C.1
US-10-424-599-36321
                                         ; OTHER INFORMATION: Clone ID: PAT_MRT3847_64586C.1
US-10-424-599-103619
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LOCATION: (1)..(1956)
OTHER INFORMATION: unsure at all n locations
                                                                                                         Query Match
Best Local Similarity 61.1%;
Matches 314; Conservative
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      ORGANISM: Glycine max
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US-10-424-599-36321/c
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Sequence 103619, Application US/10424599

Publication No. US20040031072A1

GENERAL INFORMATION:

APPLICANT: La Rosa Thomas J

APPLICANT: Zhou Yihua

APPLICANT: Zhou Yihua

APPLICANT: Cao Yongwei

TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With

TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

TITLE OF INVENTION NUMBER: US/10/424,599

CURRENT FILING DATE: 2003-04-28

NUMBER OF SEQ ID NOS: 285684

SEQ ID NO 103619

LENGTH: 909

TYPE: DNA
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                                                                                                                                                                                                                                                                                                      Length 875;
                                                                                                                                                                                                                                                                                                   Score 168.8; DB 19; Length
Pred. No. 7.5e-27;
0; Mismatches 187; Indels
PRIOR APPLICATION NUMBER: US/09/589,733C
PRIOR FILING DATE: 2000-06-08
PRIOR APPLICATION NUMBER: 60/140,646
PRIOR FILING DATE: 1999-06-23
PRIOR APPLICATION NUMBER: 60/162,904
PRIOR PILING DATE: 1999-11-01
NUMBER OF SEQ ID NOS: 41
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 4
LENGTH: 875
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Best Local Similarity 61.3%;
Matches 309; Conservative
                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Helianthus annuus
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Publication No. US20040031072A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: APPLICANT: APPLICANT: Zhou Yihua
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPRENCE: 38-21 (53223)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT APPLICATION DATE: 2003-04-28
                                                                                          1338 TGGCACCTATCCTTGAAGAACCTTGAGTAGTTTGTGGGCCCACAGCTTCCTTGCCCATTG 1279
                                                                                                                                                                        GIGCAGCAATACTCATICGICITAAACACAGIGCAGGGGTIGTIGCATCCCCCAGGIGCC 1219
                                                                                                                                                                                                                                              CTTAATGGCCCCGGGCACTGCCCATTGATATCAGCGCTGCAACTGATTTTGTGACACCCA 1159
                                                                                                                                                                                                                                                                                                                 CCG------TTTAGAGGGTAGAAGTCCATCGGAATGTTGAACCCGTCCACAAAGAG 1108
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                                                                                                                                       GTGCAACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACT 158
                                                                                                                                                                                                          TTAAGCTGACTAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGTGTGGCATTTC 218
                                                                                                                                                                                                                                                                               CCTCCACTTGGATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAA 278
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                                                                    45 TGGTATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACA----TGGACCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTACCAGCACCACCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCC
                                      Gaps
9.9%; Score 158.4; DB 18; Length 1956;
larity 61.0%; Pred. No. 2.1e-24;
Conservative 0; Mismatches 186; Indels 17;
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Pred. No. 7.7e-20;
0; Mismatches 193; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCGCCGCGCCCACACCGTGTAGGGGGCAATTGTTGACGAT 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCGATGCCGCCCAAACGATGTATGGACAGTTGTTGGCGGT 558
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US-10-424-599-7736
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OTHER INFORMATION: unsure at all n locations
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Best Local Similarity 58.7%;
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ORGANISM: Glycine max
                Local Similarity
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Matches 317
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Job time : 1005.49 secs
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Run on:

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US-08-482-037A-1/C

1/S Sequence 1, Application US/08482037A

1/S Sequence 1, Application US/08482037A

1/S Sequence 1, Application US/08482037A

1/S SEMERAL INFORMATION:
1/S APPLICANT: Ray Breessan and Paul M. Hasegawa

1/S TITLE OF INVENTION: Osmotin Gene Promoter and Use Thereof
1/S TITLE OF INVENTION: Osmotin Gene Promoter and Use Thereof
1/S TITLE OF INVENTION: Osmotin Gene Promoter and Use Thereof
1/S TITLE OF INVENTION: Osmotin Gene Promoter and Use Thereof
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1/S TITLE OF INVENTION: Osmotin Gene Promoter and Use Thereof
1/S TITLE OF INVENTION: Use Thereof
1/S TITLE OF 
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US 09-224-514A-9

US 09-224-514A-1

5221624-31

US-08-426-599B-1

US-08-426-599B-1

US-08-482-037A-2

US-09-949-016-12896

US-09-949-016-12896

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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.50 inch, 1.4 Mb
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OPERATING SYSTEM: MSDOS

SOFTWARE: ASCII

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/482,037A

FILING DATE: June 7, 1995

CLASSIFICATION: 435

PRIOR APPLICATION NUMBER: 08/476,243

FILING DATE: June 7, 1995

CLASSIFICATION DATA:

APPLICATION NUMBER: 08/180,428

FILING DATE: January 12, 1994

APPLICATION NUMBER: 08/065,147

FILING DATE: May 20, 1993

ATTORNEY APPLICATION NUMBER: 28,309

REFERENCE OF HEAT

REGISTRATION NUMBER: 28,309

REFERENCE OCCET NUMBER: 28,309

REFERENCE CHARACTERISTICS:

LENGTH: 3033 bases

TYPE: NUCLECTIGE/Amino Acid

STRANDEDNESS: Double

TOPOLOGY: Linear

MOLECULE TYPE: Genomic DNA
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June 17, 2005, 17:23:59 ; Search time 260.994 Seconds (without alignments) 10018.495 Million cell updates/sec
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Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-482-037A-1

US-07-8828-798C-4

US-08-315-808A-4

US-08-315-808A-5

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US-08-315-808A-5

US-08-315-808A-5

US-08-49-315-4

US-08-449-043-4

US-08-449-043-4

US-08-455-244-4

US-08-455-244-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
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US-08-457-552-7
US-08-456-430-7
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                              nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
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length: 2000000000
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Maximum DB seq
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APPLICANT: Van Den Elzen, Petrus J. M.
TITLE OF INVENTION: Antifungal Preparations, Process for
TITLE OF INVENTION: Making Such Preparations, Process for Obtaining Plants with
TITLE OF INVENTION: Decreased Susceptibility to Fungi
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACTAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGTGTGGCATTTCCCTCCAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAAC
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                                                                                                                                                                                                                                                                                 Kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92;
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Pred. No. 2.7e-97
0; Mismatches 93
                                                                                                                                                                                                   STATE:
CONTRY:
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 360
TYPE: Diskette, 5.25 inch, 360
TYPE: THE PC/XT/AT or compatibles
                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: DOS
SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/828,798C
FILING DATE: 06-APR-1992
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION 1914
APPLICATION 1916
ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            U-8622-6
    APPLICANT: Sela-Buurlage, Marianne
                                                                                                                                         ADDRESSEE: Ladas & Parry
STREET: 26 West 61st Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: U-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 708-1800
TELEFAX: (212) 246-8959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nicotiana tabacum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Mass, Clifford J. REGISTRATION NUMBER: 30086
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84.0%;
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 84.0
Matches 498; Conservative
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STRANDEDNESS: Double
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                                                                                                                                                                              CITY: New York
STATE: New York
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ORGANISM: Nico
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US-07-828-798C-4
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                                                           GGTATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACACATGGACCTTGGGTGCAAC
                                                                                                GGCATCTTTGTTTGAAAATTTTGAGAAAATGTAGGACCACAAGGTCCTTGTGTGCAAC
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                      Gaps
                      43;
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                    Indels
  Pred. No. 1.4e-109;
0; Mismatches 162;
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Sequence 4, Application US/07828798C
SEMERAL INFORMATION:
APPLICANT: Welchers, Leo S.
APPLICANT: Melchers, Leo S.
76.8%;
                    679; Conservative
  Best Local Similarity
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APPLICANT: Cornelissen, Bernardus J. C.
APPLICANT: Meulenhoff, Elisabeth J. S.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Elzen, Petrus J. M.
TITLE OF INVENTION: Antiumgal Preparations, Process for TITLE OF INVENTION: Making Such Preparations, Process for TITLE OF INVENTION: With Decreased Susceptibility to Fungi
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IBM PC/XI/AT or compatibles
      92;
         Mismatches
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APPLICATION NUMBER: US/08/495,819B
FILING DATE: 31-MAY-1995
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TITLE OF INVENTION: Making Such
TITLE OF INVENTION: With Decrea
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: Ladas & Parry
STREET: 26 West 61st Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Woloshuk, Charles P. APPLICANT: Melchers, Leo S.
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         Conservative
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OPERATING SYSTEM:
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APPLICANT: Melchers, Leo S.
APPLICANT: Cornelissen, Bernardus J. C.
APPLICANT: Meulenhoff, Elisabeth J. S.
APPLICANT: Meulenhoff, Elisabeth J. S.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Elzen, Petrus J. M.
TITLE OF INVENTION: Antifungal Preparations, Process for TITLE OF INVENTION: Making Such Preparations, Process for Obtaining Plants with TITLE OF INVENTION: Decreased Susceptibility to Fungi
245 CAGCATTGAAGTTACAATTAGTACGGCCCCATACACGTGCCATTTAGTACCTCGTGGCG 186
                                                                                                              185 CATTGATCACCCAAGTTTGGCCTCGATCGAGACGCCGGCCACCGCCTATGGGTGTCGACG 126
                                                                     CATCAATGACCCACATTTGGCCTCGATCGAGACGTCGGGCACCGCCTATCGG-GTCGATG 524
                                                                                                                                                          CCGCCCAAACGATGTATGGACAGTTGTTGGCGGTACCTCGATAGTGACAGCATAGTGAA 584
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 10023
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb storage
COMPUTER: 1BM PC/XT/AT or compatibles
OPERATING SYSTEM: DOS
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 197
FILING DATE: 06-APR-1992
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 31-05-91
ATTORNEY/AGENT INFORMATION:
NAMB: MASS, Clifford J.
REGISTRATION NUMBER: 30086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/315,868A
FILING DATE: 09-SEP-1994
                                                                                                                                                                                                                                                                                                                                                            RESULT 3
US-08-315-868A-4/c
; Sequence 4, Application US/08315868A
; Patent No. 5856151
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26 West 61st Street
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US-08-315-868A-4
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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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STRANDEDNESS: Double
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STATE: New York
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Best Local Similarity
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ORIGINAL SOURCE:
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STREET: 26
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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ORIGINAL SOURCE:
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STRANDEDNESS:
                                                              US-07-828-798C-5/c
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Best Local Simi
Matches 498;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    545 AATATTGTTGTCCTCCGAATGTAGTACAAGGGTTATTACATCCTCCGGAACCCTAAGTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        305 CCCACCCGGTGCACTGTAGGACTCCACCACGTCACCGGTTTGGCACGTACCCCTACCAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 419.8; DB :
Pred. No. 2.7e-97;
0; Mismatches 92
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/315,868
FILING DATE: 30-SEPT-94
PRIOR APPLICATION NUMBER: 07/828,798
FILING DATE: 06-APRIL-92
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 31.05-91
ATTOCNEY/AGENT INFORMATION:
NAME: Mass, Clifford J.
REGISTRATION NUMBER: 30086
REFERENCE/DOCKET NUMBER: 30086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: CDNA
ORIGINAL SOURCE:
ORGANISM: Nicotiana tabacum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26.3%;
84.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                               (212) 246-8959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 233288
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 84.0
Matches 498; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: Nucleotide
STRANDEDNESS: Double
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-495-819B-4
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Sequence 5, Application US/07828798C

| Sequence 5, Application US/07828798C
| Patent No. 5389609
| GENERAL INFORMATION:
| APPLICANT: Wolchers, Leo S. |
| APPLICANT: Melchers, Leo S. |
| APPLICANT: Sela-Buurlage, Marianne B. |
| APPLICANT: Sela-Buurlage, Marianne B. |
| APPLICANT: Van Den Blzen, Petrus J. M. |
| TITLE OF INVENTION: Making Such Preparations, Process for Obtaining Plants with TITLE OF INVENTION: Decreased Susceptibility to Fungi NUMBER OF SEQUENCES: 7
| CORRESPONDENCE ADDRESS: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    285
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 419.8; DB 1
Pred. No. 2.7e-97;
0; Mismatches 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTK1.

ZIP: 10023
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 350
TOWNER: IBM PC/XT/AT or compatibles
TOWNER: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/07/828,798C
FILING DATE: 06-APR-1992
CLASSIPICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 31-05-91
ATTORNEY/AGENT INFORMATION:
NAME: MASS, Clifford J.
REGISTRATION NUMBER: 30086
REFERNCE/DOCKET NUMBER: U-8622-6
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 100-1800
TELEFAX: (212) 246-8959
                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Ladas & Parry
STREET: 26 West 61st Street
CITY: New York
STATE: New York
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nicotiana tabacum
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Sequence 5, Application US/08495819B

Sequence 5, Application US/08495819B

Sequence 5, Application US/08495819B

Betant No. 6087161

GENERAL INFORMATION:

APPLICANT: Woloshuk, Charles P.

APPLICANT: Woloshuk, Charles P.

APPLICANT: Meulenhoff Elisabeth J. S.

APPLICANT: Sela-Buurlage, Marianne B.

APPLICANT: Sela-Buurlage, Marianne B.

TITLE OF INVENTION: Antifungal Preparations, Process for Obtaining Plants

TITLE OF INVENTION: With Decreased Susceptibility to Fungi

NUMBER OF SEQUENCES:

TITLE OF INVENTION: With Decreased Susceptibility to Fungi

CORRESPONDENCE ADDRESS:

ADDRESSEE: Laddas & Parry

STREET: 26 West 61st Street
                                                                                                                                                                                                                                                                                                    546
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                                                                                                                                                                                                                                                           46 GGTATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAAC
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                                                                                                                                                                                                                  Gaps
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                                                                                                                                                                       Length
                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                  92;
                                                                                                                                                                    Score 419.8; DB 2
Pred. No. 2.7e-97;
0; Mismatches 92
                                                                                                         Nicotiana tabacum
                                                                                                                                                                    Query Match 26.3%;
Best Local Similarity 84.0%;
Matches 498; Conservative
                  Double
                                                             CDNA
                STRANDEDNESS: DO TOPOLOGY: Linear
Nucleotide
                                                                                ORIGINAL SOURCE:
ORGANISM: Nico
                                                           MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-495-819B-5/c
                                                                                                                           US-08-315-868A-5
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APPLICANT: Wolchers, Leo S.
APPLICANT: Wolchers, Leo S.
APPLICANT: Melchers, Leo S.
APPLICANT: Cornelissen, Bernardus J. C.
APPLICANT: Melchhoff, Elsabeth J. S.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Elzen, Petrus J. M.
APPLICANT: Van Den Elzen, Petrus J. M.
TITLE OF INVENTION: Making Such Preparations, Process for Obtaining Plants with TITLE OF INVENTION: Decreased Susceptibility to Fungi
CORRESPONDENCES:
ADDRESSE: Ladas & Parry
STREET: 26 West 61st Street
                                                                                                                                                                                                                    CATTGATCACCCCAAGTTTGGCCTCGATCGAGACGCCGGCCACCGCCTATGGGTGTCGACG 126
                                                                                                                                                cccacccccrccacrcracacrccacacacrccacacrcacacrtraccacaraccacaraccaa 246
                                                                                                                                                                                             465
                                                           AGAAATCTAAACCACTGAATTGGTCCAAAGCGTATTCAGCCAAGGTGTTTGGTGGTTTAC 306
                                                                                                                                                                                                                                                                                    CATCAATGACCCACATTTGGCCTCGATCGAGACGTCGGGCACCGCCTATCGG-GTCGATG 524
                                                                                                                                                                                                                                                                                                                                                                         CCGCCCAAACGATGTATGGACAGTTGTTGGCGGTACCTCGATAGTGACAGCATAAGTGAA 584
                                                                                                                                                                                                                                                                                                                                                                                                CCCACCCGGTGCACTGCAGGACACCACCACTATCACCAGTCATGCACGAACCTCTACCAG
                                                                                                                                                                                           CACCACCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              585 AGTCACAAAAGCCAGAAGGGAGAAACCAAAAGAAGATCTCAAGTAGCCCATGT 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTCACCAAGGCAAGGAAGAAAAACAAAAAGAAGATCTCAAGTTGCCCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 10023
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 36(
COMPUTER: IBM PC/XT/AT or compatibles
OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/315,868A
FILING DATE: 09-SEP-1994
CLASSIFICATION NUMBER: 07/828,798
APPLICATION NUMBER: 07/828,798
FILING DATE: 06-APR-1992
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 13-05-91
ATTORNEY/AGENT INFORMATION:
NAME: MASS, CLIMIFORD J.
REGISTRATION NUMBER: 30086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: U-8622-6
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 708-1800
TELEPAX: (212) 246-8959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 5, Application US/08315868A Patent No. 5856151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: 233288
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: New York
STATE: New York
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Wolosh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -08-315-868A-5/c
                                                             365
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404
185 CATTGATCACCCAAGTTTGGCCTCGATCGAGACGCCGGCCACCGCCTATGGGTGTCGACG 126
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   169 TAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGTGGCCATTTCCCTCCACTTG 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATCTAAGTTGTTGAACTGGTCCAAGGCGTACTCGGCTAGGGTGTTTGGTGGTTTGCCCC 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            408
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAGGCGCAT 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         223 CATCAAAGTIGCAATIGGITCGGGGCCATATACGGGCTCCTGCTGTGCCAGCTGCGACGG 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  163 TTANAGACCAGGTTTGGCCTGAGTTANGTTGTCGGCCGCCACC--AGGCACCGCACCAGC 106
                                            CCGCCCAAACGAIGIAIGGACAGIIGIIGGCGGIACCICCGAIAGIGACAGCAIAAGIGAA 584
                                                                                      68
                                                                   49 ATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            577 ATCTGGTCTTGAAAAACCTTGATAAATCAGTTGGTCCACAATTTCCAGAGTTGCAACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       517 ACTGATCAGTTTTGTACACGGTGCAAGGGTTATTGCACCCGCCAGGAGCCCGTAACTCAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    403 TAGAATTGGGTCTAAACACCATCGGCACATTGAATCCGTCCACAAGAGAAATGTCAAAGA
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                                                                                                                                  585 AGTCACAAAAGCCAGAAGGGAGAAACCAAAAGAAGATCTCAAGTAGCCCATGT
                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Crasts, Oswald R.
APPLICANT: Duvick, Jon
APPLICANT: Duvick, Jon
APPLICANT: Lu, Guinua
TITLE OF INVENTION: Sunflower Anti-Pathogenic Proteins and
TITLE OF INVENTION: Genes and their Uses
TITLE REFERENCE: 5718-90
CURRENT FILING DATE: 1099-06-08
PRIOR APPLICATION NUMBER: 60/140,646
PRIOR APPLICATION NUMBER: 60/140,646
PRIOR APPLICATION NUMBER: 60/162,904
PRIOR PILING DATE: 1999-06-23
PRIOR PILING DATE: 1999-11-01
NUMBER OF SEQ ID NOS: 41
SEQ ID NOS: 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 875;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 168.8;
                                                                                                                                                                                                                                                                                          Sequence 4, Application US/09589733C
Patent No. 6677503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10.6%;
61.3%;
                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Bidney, Dennis L.
APPLICANT: Crasta, Oswald R.
APPLICANT: Duvick, Jon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Helianthus annuus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 61.3
Matches 309; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-589-733C-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATATTGTTGCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTTTAAGCT 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACCACCBAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCCTAGGCG, 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATCAATGACCCACATTTGGCCTCGATCGAGACGTCGGGCACCGCCTATCGG-GTCGATG 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           425 TAGGGTTAGTCGGGGCGAAAGTCATCGGAATGTTGAATCCATCAACTAAAGAAATGTCCC 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365 AGAAATCTAAACCACTGAATTGGTCCAAAGCGTATTCAGCCAAGGTGTTTGGTGTTTAC 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     605 GGCATCTTTGTTTGAAAATTTTGAGAAAAATGTAGGACCACAAGGCCTTGTGTGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          545 AATATTGTTGTCCTCCGAATGTACAAGGGTTATTACATCCTCCGGGAACCCTAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           485 CGCGGGGACATICGCCGTTTATATTAGCCGTACAATGAATTGCATGGCATTTCCCTCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGGATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACCCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTCTACCAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 3; Length 884;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
             ZIP: 10023
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26.3%; Score 419.8; DB 3 llarity 84.0%; Pred. No. 2.7e-97; Conservative 0; Mismatches 92
                                                                                                                      SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/495,819B
FILING DATE: 31-MAY-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 08/315,868
FILING DATE: 30-SEPT-94
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 90.96
FILING DATE: 31-05-91
ATTONNEY AGENT TIPORMATION:
NAWE: MASS: Clifford J.
REGISTRATION NUMBER: 30086
REFERENCE/DOCKET NUMBER: 30086
REFERENCE/DOCKET NUMBER: 30086
TELEPHONE: (212) 708-1809
TELEPHONE: (212) 708-1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Nicotiana tabacum
US-08-495-8198-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 233288
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: Nucleotide
STRANDEDNESS: Double
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 498; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46
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APPLICANT: Williams Shericca C.
TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
TITLE OF INVENTION: DAS SEQUENCES AND USES THEREOF
NUMBER OF SEQUENCES: 106
CORRESPONDENCE ADDRESS:
ADDRESSEE: CIBA-GEIGY Corporation
STREET: 7 Skyline Drive
CITY: Hawthorne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OURENTING SYSTEM: PC-DOS/MS-DOS
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/181,271A
FILING DATE: 13-JAN-94
CLASSITCATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/093,301
FILING DATE: 1-G-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-NOV-1992
PRIOR APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-APP-1991
PRIOR APPLICATION NUMBER: US 07/678,566
FILING DATE: 6-FEB-1989
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-MAR-1989
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-MAR-1988
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: B-MAR-1988
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: B-MAR-1988
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: B-MAR-1988
PRIOR APPLICATION NUMBER: US 08/042,847
PRILING DATE: G-APR-1993
                          105 CCAAACGGTGTATGGACAGTTGTT 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PILING DATE: 21-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/425,504
FILING DATE: 20-0CT 1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/848,506
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                                                                                                                                                                                                                                                                                                Duesing, John H.
Friedrich, Leslie B.
Goodman, Robert M.
Harms, Christian
Mains, Jr., Frederick
Montoya, Alice
Moyer, Mary B.
Neuhaus, Jean-Marc
Payne, George B.
Sperison, Christoph
Stinson, Jeffrey R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 10532
COMPUTER REALABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
529 CCAAACGATGTATGGACAGTTGTT
                                                                                                                                                        Sequence 4, Application US/08181271A
Patent No. 5614395
                                                                                                                                                                                                                              Ryals, John A.
Alexander, Danny C.
Beck, James J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Uknes, Scott J.
Ward, Eric R.
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: I
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COUNTRY: USA
                                                                                                                                                                                                        GENERAL INFORMATION:
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                                                                                                                RESULT 9
US-08-181-271A-4/c
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APPLICANT:
APPLICANT:
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APPLICANT:
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APPLICANT:
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       431 -----CTCCATTGGTCGGCTGAATTCCATGGGGATGTTAAATCCATCAACAAGAGAGA 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               376 TGTCGACAAAGTC---CTGATTGGGTTGATTAAGTGCAAATTCAGCTAAAGTGTTAGGTG 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       319 criticcaradecrigacacreraacarecegriacagiereceagiereacaarracere 260
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               259 GGCCACTGCCATCGAAGTTGCAATTGGTTCGACCCCAAAATGCGAGCCTGGACTGTTCCTG 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          520 CGATGCCGCCCAAACGATGTATGGACGTTGTTGGCGGTACCTCGATAGTGACAGCATAA 579
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 TGCAACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            340 GITTGCCCCACCCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  460 TAGGCGCATCAATGACCCACATTTGGCCTCGATCGAGACGTCGGGCACCGCCTATCGGGT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            220 CTCCACTTGGATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTCCCAGAAATCTAAGTTGTTGAACTGGTCCAAGGCGTACTCGGCTAGGGTGTTTGGTG
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FILING DATE: 6-MAR-1992

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/768,122
FILING DATE: 27-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/580,431
FILING DATE: 7-SEP-1990
PRIOR APPLICATION NUMBER: US 07/368,672
FILING DATE: 20-JUN-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/329,018
FILING DATE: 24-MAR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/045,957
FILING DATE: 12-APR-1989
PRIOR APPLICATION NUMBER: US 08/045,957
FILING DATE: 1-APR-1983
ATTORNEY AGENT: 1-APR-1993
ATTORNEY AGENT: 1-APR-1993
ATTORNEY AGENT: 1-APR-1993
REGISTRATION NUMBER: 36,129
REGISTRATION INFORMATION:
TELEPONNE: (919)541-8614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9.1%; Score 144.8; DB 1;
60.5%; Pred. No. 4.8e-27;
tive 0; Mismatches 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     580 GTGAAAGTCACAAA 593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 900 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 60.5
Matches 335; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TOPOLOGY: linear
; MOLECULE TYPE: CDNA
US-08-181-271A-4
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APPLICANT: Williams, Shericca C.
TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/449,315
FILING DATE: 24-MAY-1995
DBJOD NOTE: 24-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRICK APPLICATION DATA:
APPLICATION NUMBER: 08/181,271
FILING DATE: 13-JAN-94
APPLICATION NUMBER: 08/093,301
FILING DATE: 16-JUL-1993
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-NOV-1992
APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-APR-1991
PRICK APPLICATION DATA:
APPLICATION NUMBER: US 07/678,378
FILING DATE: 6-FEB-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-MAR-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       UMBER: US 08/042,847
6-APR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MBER: US 07/632,441
21-DEC-1990
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APPLICATION NUMBER: US 07/425,504
FILING DATE: 20-OCT 1989
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CIBA-GEIGY Corporation
                                                                                                                                                                                                                                                             Friedrich, Leslie B. Goodman, Robert M. Harms, Christian Meins, Jr., Frederick Montoya, Alice Moyer, Mary B. Neuhaus, Jean-Marc Payne, George B. Sterison, Christoph Stinson, Jeffrey R. Uknes, Scott J. Ward, Eric R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 10532
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                         Sequence 4, Application US/08449315
Patent No. 5650505
                                                                                                                                                                                     Ryals, John A.
Alexander, Danny C.
Beck, James J.
Duesing, John H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 7 Skyline Drive
CITY: Hawthorne
STATE: New York
COUNTRY: USA
106
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APPLICATION NUMBER: 1
FILING DATE: 6-APR-19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
ADDRESSEE: CIBA-GEIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                   RESULT 10
US-08-449-315-4/C
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APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      487 rchactigrecresechtrierregrinathschechterichtersagarthacsacht--- 432
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                376 TGTCGACAAAGTC---CTGATTGGGTTGATTAAGTGCAAATTCAGCTAAAGTGTTAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     340 GTTTGCCCCACCCGGTGCACTGCAGGACACCACCACAATCACCAGTCATGCACGAACCTC 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           319 CTTTTCCATAGCCTTGACACTCTAACATCTCCGTTACAGTCTCCCAGTCTCACATTACCTC 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        400 TACCAGCACCGCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCC 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      259 geccacreccarceaaerrecaarreerreacceccaareceaecereeacrerrere 200
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                607 GGCATCTTTCCTTAAAAATCTCGACAAATCAGTAGGCCCACATGATCCAGGCCCATTTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46 GGTATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACAT-----GGACCTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 TGCAACAATATTGTTGTCCTCCAAATGTGGGTACAAGGATTGTTACATCCTCCGGGTACTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. 4.8e-27;
0; Mismatches 197;
                PATRICATION NUMBER: US 07/768,122
FILING DATE: 27-SEP-1991
RIOR APPLICATION DATA:
APPRICATION NUMBER: US 07/580,431
FILING DATE: 7-SEP-1990
RIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/368,672
FILING DATE: 20-UN-1989
RIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/329,018
FILING DATE: 24-MAR-1989
RIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/045,957
FILING DATE: 12-APR-1933
ATTORNEY/AGENT INFORMATION:
NAME: BIMER, JAMES SCOCT
REGISTRATION NUMBER: 36,129
REFISCOMMUNICATION INFORMATION:
NAME: BIMER, JAMES SCOCT
REGISTRATION NUMBER: 36,129
REFISCOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 900 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 60.5
Matches 335; Conservative
PRIOR APPLICATION DATA: APPLICATION NUMBER: 1
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STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear MOLECULE TYPE: CDNA
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APPLICANT: Williams, Shericca C.
TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
NUMBER OF SEQUENCES: 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WEDIUM TYPE: RIPOPY disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/44,803
FILING DATE: 13-MAY-1995
FILING DATE: 13-JAN-94
APPLICATION NUMBER: US 08/093,301
FILING DATE: 13-JAN-94
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-APR-1991
FILING DATE: 1-A-RR-1991
FILING DATE: 1-A-RR-1991
FILING DATE: G-MOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/305,566
FILING DATE: G-REB-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/305,566
FILING DATE: G-REB-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/042,847
FILING DATE: G-A-RR-1988
PRIOR APPLICATION NUMBER: US 08/042,847
FILING DATE: G-A-RR-1988
FILING DATE: G-A-RR-1989
FILING DATE: G-A-RR-1989
FILING DATE: G-A-RR-1987
APPLICATION NUMBER: US 08/042,847
FILING DATE: G-A-RR-1987
APPLICATION NUMBER: US 07/632,441
FILING DATE: G-A-RR-1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: CIBA-GEIGY Corporation
STREET: 7 Skyline Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 21-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/425,504
FILING DATE: 20-OCT 1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/848,506
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21-DEC-1990
                                                                                                                                                                                                                                                                                                                              Goodman, Robert M.
Harms, Christian
Meins, Jr., Frederick
Montoya, Alice
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Neuhaus, Jean-Marc
Payne, George B.
Sperison, Christoph
Stinson, Jeffrey R.
Uknes, Scott J.
                                                                                                                                     Sequence 4, Application US/08444803
Patent No. S654414
GENERAL INFORMATION:
                                                                                                                                                                                                                                                            Beck, James J.
Duesing, John H.
Friedrich, Leslie B.
                                                                                                                                                                                                              Ryals, John A.
Alexander, Danny C.
Moyer, Mary B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 10532
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Hawthorne
STATE: New York
COUNTRY: USA
                                                                                                                       US-08-444-803-4/C
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APPLICANT:
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400 TACCAGCACCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCC 459
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        259 GGCCACTGCCATCGAAGTTGCAATTGGTTCGACCCCAAATGCGAGCCTGGACTGTTCCTG 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141 GGCCGCGGGCCCAGACTGTGTAGGTGCATTTGTTGAC--AATGTCAAAAGTGGCAGCATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          607 gecarcitricerraaaaaarcicgacaaarcagragececacargarecagececarris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 TGCAACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           487 TCAACTGTGCTGGGCATTGTTCGTTAATAGGTGCTGTGCATCTGAGATTACGACAT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376 TGTCGACAAAGTC---CTGATTGGGTTGATTAAGTGCAAATTCAGCTAAAGTGTTAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         340 GTTTGCCCCACCCGGTGCACTGCAGGACACCACACAATCACCAGTCATGCACGAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46 GGTATCTTTGTTTTGAAAAATTGGAAAAGAACGTAGGACCACAT----GGACCTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          547 TACAACAATATTCATTGGTTTTTATCACAGTACATGGGTTGTTACATCCACCTTGTGTTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Elmer, James Scott
REGISTATION NUMBER: 36.129
REFERENCE/DOCKET NUMBER: S-19825/P1/CGC 1727
TELECOMMUNICATION INFORMATION:
                                                                                      PRIOR DATE: 2/52F1191

PRIOR DATE: 7/580,431

FILING DATE: 7-58P-1990

PRIOR APPLICATION NUMBER: US 07/368,672

APPLICATION NUMBER: US 07/368,672

FILING DATE: 20-7UN-1989

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/329,018

FILING DATE: 24-MAR-1989

PRIOR APPLICATION NUMBER: US 07/329,018

FILING DATE: 12-APR-1989

PRIOR APPLICATION NUMBER: US 08/045,957

FILING DATE: 11-APR-1993

ATTORNEY/AGENT INFORMATION:
                                                US 07/768,122
FILING DATE: 6-MAR-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
FILING DATE: 27-SEP-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (919)541-8614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: (919) 541-861
TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 900 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 60.5
Matches 335; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: single
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RESULTATION OF CONTRICT BY SEQUENCES AND LATER DESCRIPTION OF SEGUENCE 4. A POPILICATION USE OF CONTRICT BY SEQUENCE AS A POPILICATION OF SEGUENCE AS A POPILICATION OF SEGUENCE AS A POPILICATION OF SEGUENCE DESCRIPTION OF SEGUENCE A PARTICANT RAINE, Chief and A PARTICANT RAINE, CHIEF A PARTICANT SEPRISON CHIEF A PARTICANT ON THE SEPRISON CHIEF A PARTICANT ON THE SEPRISON CHIEF A PARTICANT ON THE SEPRISON CHIEF A PARTICANT ON WHERE IN SEPR
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607 GCCATCTTCCTTAAAAATCTCGACAAATCAGTAGGCCCACATGATCCAGGCCCATTTG 548
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     487 rcaacrigrecresecarrerrestrarraserscresecarcresearraceacar---- 432
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTCCCAGAAATCTAAGTTGTTGAACTGGTCCAAGGCGTACGGCTAGGGTGTTTGGTG 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               376 richicacaalagic---crearricecrricarralaricaeraarricaecraagicrraceric 320
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         400 TACCAGCACCACCGAAGTTACATCCAGTACGACCCCATATACGTGCCATCGTAGTGCCCC 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141 geccececcia de contrata de la contrata del contrata del contrata de la contrata del contrata de la contrata del contrata de la contrata del contrata del contrata de la contrata del con
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCAACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                46 GGTATCTTTGTTTGAAAAATTGGAAAGAACGTAGGACCACAT----GGACCTTGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 144.8; DB 1;
Pred. No. 4.8e-27;
0; Mismatches 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S-19825/P1/CGC 1727
PRICATION DATA:
APPLICATION NUMBER: US 07/768,122
FILING DATE: 27-5EP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/580,431
FILING DATE: 7-5EP-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/368,672
FILING DATE: 20-JUN-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/329,018
FILING DATE: 24-MAR-1989
PRIOR APPLICATION NUMBER: US 07/329,018
FILING DATE: 12-APR-1989
PRIOR APPLICATION NUMBER: US 08/45,957
FILING DATE: 12-APR-1993
ATTORNEY,AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Elmer, James Scott
REGISTRATION NUMBER: 36,129
REFERENCE/DOCKET NUMBER: S-TELECOMMUNICATION INFORMATION: (919)541-8614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 900 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : 900 base pairs
nucleic acid
EDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; MOLECULE TYPE: CDNA
US-08-449-043-4
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STRANDEDNESS:
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Matches 335;
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REBULT 13

We-Ge-5-65A-4/C

We-Ge-5-65A-4/C

We-Ge-5-65A-4/C

We-Company C.

PREALL NO. 5767369

WERELL NO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                 22;
                                                                                                                                                                                                                                                                                                                                                                                                       Length 900;
                                                                                                                                                                                                                                                                                                                                                                                                     9.1%; Score 144.8; DB 1; Length 60.5%; Pred. No. 4.8e-27; tive 0; Mismatches 197; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        46 GGTATCTTTGTTTGAAAATTGGAAAAGAACGTAGGACCACAT---
                                                                          ATTORNEY GENT INCORMATION:
NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,24
REFERENCE DOCKET NUMBER: 8-19825/P1/CGC 1727/DIVIO
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919) 541-8687
TELEPAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
FILING DATE: 24-MAR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/045,957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4, Application US/08455416; Patent No. 5777200; GENERAL INFORMATION:
APPLICANT: Ryals, John A. APPLICANT: Alexander, Danny C. APPLICANT: Beck, James J.
                                                              12-APR-1993
                                                                                                                                                                                                                                                           LENGTH: 900 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 60.5<sup>3</sup>
Matches 335; Conservative
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                                                                                                                                                                                                                                                                                                                            linear
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                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-455-416-4/c
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APPLICANT: Neuhaus, Jean-Marc
APPLICANT: Payne, George B.
APPLICANT: Sperison, Offristoph
APPLICANT: Strinson, Jeffrey R.
APPLICANT: Uknes, Scott J.
APPLICANT: Ward, Eric R.
APPLICANT: Ward, Eric R.
APPLICANT: Walliams, Shericca C.
TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC;
TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
NUMBER OF SECUENCES: 106
CORRESPONDENCE ADDRESS:
ADDRESSEE: CIBA-GEIGY COTTOR
STREET: 7 Skvli--
CITV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/455,416
FILING DATE: 13-MAY-1995
CLASSIPICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/093,301
FILING DATE: 13-JAN-94
APPLICATION NUMBER: US 08/093,301
FILING DATE: 16-JUL-1993
APPLICATION NUMBER: US 07/937,197
FILING DATE: 1-APR-1991
PRIOR APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-APR-1991
PRIOR APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-APR-1991
PRIOR APPLICATION NUMBER: US 07/305,566
FILING DATE: 6-PEB-1989
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-MR-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/165,67
FILING DATE: 8-MR-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/632,441
FILING DATE: 1-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/632,441
FILING DATE: 21-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/425,504
FILING DATE: 21-DEC-1990
PRIOR APPLICATION NUMBER: US 07/425,504
FILING DATE: 20-OCT 1989
PRIOR APPLICATION NUMBER: US 07/425,504
FILING DATE: 20-OCT 1989
PRIOR APPLICATION NUMBER: US 07/425,504
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APPLICATION DATA:
APPLICATION NUMBER: US 07/848,506
FILING DATE: 6-MAR-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/768,122
FILING DATE: 27-58E-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/580,431
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APPLICATION DATA:
APPLICATION NUMBER: US 07/368,672
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION DATA:
Duesing, John H.
Friedrich, Leslie B.
Goodman, Robert M.
Harms, Christian
Meins, Jr., Frederick
Montoya, Alice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 10532
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Hawthorne
STATE: New York
COUNTRY: USA
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160 TAAGCTGACTAGGACATTCACCATTTATATTTGCCGTGCATTGAATTGTGTGGCATTTCC 219
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FILING DATE: 24-MAR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/045,957
FILING DATE: 12-APR-1993
ATTORNEY/AGENT INFORMATION:
NAME: BIMEY, James Scott
REGISTRATION NUMBER: 36,129
REFERENCE/DOCKET NUMBER: 36,129
REFERENCE/DOCKET NUMBER: 6.19825/P1/CGC 1727
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919)541-8614
TELEPHONE: (919)541-8614
TELEPAX: (919)541-8689
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 900 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 9.1%; Score 144.8; DB 1; Best Local Similarity 60.5%; Pred. No. 4.8e-27; Matches 335; Conservative 0; Mismatches 197;
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Patent No. 5789214
GENERAL INFORMATION:
APPLICANT: Ryals, John A.
APPLICANT: Alexander, Danny C.
APPLICANT: Beck, James J.
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US-08-455-244-4/c
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APPLICANT: Duesting, John H.
APPLICANT: Goodman, Robert M.
APPLICANT: Goodman, Robert M.
APPLICANT: Goodman, Robert M.
APPLICANT: Goodman, Robert M.
APPLICANT: Mean, Christian, Christian
APPLICANT: Mean, Christian
APPLICANT: Mean, John H.
APPLICANT: Mean, Christoph
APPLICANT: Mean, Mean, John H.
APPLICANT: Mean, Mean, John H.
APPLICANT: Mean, Christoph
APPLICANT: Mean, M
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   46 GGTATCTTTGTTTGAAAATTGGAAAAGAACGTAGGACCACAT---
FILING DATE: 24-MAR-1989

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/045,957

FILING DATE: 12-APR-1993

ATTORNEY/AGENT INFORMATION:

NAME: Elmer, James Scott

REGISTRATION NUMBER: 36,129

REFERENCE/DOCKET NUMBER: 36,129

TELEPHONE: (919)541-8614

TELEPHONE: (919)541-8614

TELEPRAK: (919)541-8619

INFORMATION FOR SEQ ID NO: 4:

SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Search completed: June 17, 2005, 19:51:55 Job time: 263.994 secs
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                                                                                                                                                                                                                                                                          LENGTH: 900 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 60.5
Matches 335; Conservative
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Sequence 2118, Ap Sequence 314, App Sequence 314, App Sequence 4, Appli Sequence 4, Appli Sequence 1019, App Sequence 1019, App Sequence 2136, App Sequence 2736, App Sequence 2136, App Sequence 3136, App Sequence 3136, App Sequence 3136, App Sequence 1019, App Sequence 4061, App Sequence 4061, App Sequence 4061, App Sequence 10107, App Sequence 2136, App Sequence 2136, App Sequence 2136, App Sequence 5132, App Sequence 5182, App Sequence 1014, App Sequence 5182, App Sequence 1014, App Sequence 1014, App Sequence 5182, App Sequence 1014, App Sequence 1014
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; Sequence 1, Application US/10051307
; Publication No. US20020170095A1
; GENERAL INFORMATION:
; APPLICAMT: DAT, ZITV
; APPLICAMT: SH, LIFANG
; APPLICAMT: SH, LIFANG
; TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF
; TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF
; FILE REFERENCE: 059440/0141
; CURRENT PRILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: 2002-01-23
; PRIOR FILING DATE: 2001-01-23
; NUMBER: OF SEQ ID NOS: 14
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 1
; LENGTH: 1595
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Sequence 9, Appli
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US-10-259-165-38

US-10-259-165-38

US-10-424-599-7736

US-10-424-599-7736

US-10-424-599-7736

US-10-424-599-7736

US-10-424-599-7737

US-10-259-165-18

US-10-260-238-4061

US-10-425-115-10106

US-09-770-791-806

US-09-770-791-806

US-10-259-165-18

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ORGANISM: Solanum tuberosum
US-10-051-307-1
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(cgn2_6/ptodata//pubpna/USO7_NEW_PUB.seq:*

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Copyright (c) 1993 - 2005 Compugen Ltd.
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US-10-903-948-1
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Sequence:

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Score

Result 80.

Db 1261 TTGATGCAAATATTAAAAATAAATTGAAGGAATTGATGATCGATC	RESULT 3 US-10-051-307-2 is Sequence 2, Application US/10051307 is publication No. US20020170095A1 is GENERAL INPORMATION: APPLICANT: DAI, ZIVU is APPLICANT: BHI, LIFANG is APPLICANT: HOOKER, BRIAN S. TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF ITLE REPERENCE: 0594-00.0441 CURRENT APPLICATION NUMBER: US/10/051,307 CURRENT FILING DATE: 2001-01-23 is PRIOR APPLICATION NUMBER: 60/263,224 is RIOR PELLOR OF SEQ ID NOS: 14 is SOFTWARE: Patentin Ver. 2.1 is SOFTWARE: Patentin Ver. 2.1 is SO ID NO 2 is LENGTH: 1598 if TYPE: DNA is ORGANISM: Solanum tuberosum US-10-051-307-2	Query Match 92.9%; Score 1482.2; DB 13; Length 1598; Best Local Similarity 96.7%; Pred. No. 2.16-311; Matches 1546; Conservative 0; Mismatches 48; Indels 5; Gaps 3; GTAATACGACTCACTATAGGACCCGGGCCGGGCCGGGCC
	541 TGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGTCAAAAGTCACAAAAGCAAGAAG 600 [•

	RESULT 4 US-10-903-948-2 US-10-903-948-2 Sequence 2, Application US/10903948 PUBLICATION NO. USZO050005324A1 GENERAL INFORMATION: APPLICANT: BAI, LIFANG APPLICANT: HOCKER, BRIAN S. TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF FILE REFERENCE: 059440/0141 CURRENT APPLICATION NUMBER: US/10/903,948 CURRENT FILING DATE: 2004-07-30 PRIOR FILING DATE: 2002-01-22 PRIOR FILING DATE: 2002-01-22 PRIOR FILING DATE: 2001-01-23 NUMBER: OF SEQ ID NOS: 14 SOFTWARE: PATENTIN Ver. 2.1 SEQ ID NO 2 LENGTH: 1598 TYPE: DNA VORGANISM: Solanum tuberosum US-10-903-948-2	Ouery Match 92.9%; Score 1482.2; DB 21; Length 1598; Best Local Similarity 96.7%; Pred. No. 2.1e-311; Matches 1546; Conservative 0; Mismatches 48; Indels 5; Gaps 3; Qy	Qy 61 AAAAATTGGAAAAGAACGTAGGACCAATGGACCAATATTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG	QY 181 CATTATATTTGCCGTGCATTGAATTGTGTGGCATTTCCCTCCACTTGGATTACTCGGGG 240 Db 181 CATTATATTTGCCGTGCATTGAATTGTGTGGCATTTCCCTCCACTTGGATTACTCGGGG 240 QY 241 CGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCAGAAATCTAAGTTGT 300 Db 241 CGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCCAGAAATCTAAGTTGT 300	301 TGAACTGGTCCAAGGCGTACTCGGCTAGGTGTTTTGGTGGTTTTGCCCCACCCGGTGCACT	A21 ATCAGTAGCCCATATACCTGCATGTAGTGCGCTGATGAGCCACATATAGTGCCCATAGTGCCACATGTAGTGCCACATGTAGTGCCATGTAGTGCCATGTAGTGCCATGTAGTGCCATGTAGTGCCATGTAGTGCCATGTAGTGCCATGTAGTGCCATCATGTAGTGCCATGTAGTGCCATGTAGTGCCATGTAGTGCCATGTAGTGCCATGTAGTGCCACACAATGTAGTGCCACAAAAAAAA
361 GCAGGACCACCACCACTATCACCAGTATCACGAACCTTTACCAGCACCATCGAAGTTAC 420	1		1019 TAGGTACACGTTTGAACATAAAAATCATAAAAATTGAAAGTAAAAATTAGTTTTTTTT		CCTATTGATGCAAATATCTATTAAAAGAACCCCTATTCATGCTTTATTTTATTTTACGAT	1377 AACTTATCGTCCATCCACATTAAAATAACGTTACTATGGCTGCTTTTAGAGAAACAAGT 1436

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US-10-051-307-3
; Sequence 3, Application US/10051307
; Sequence 3, Application US/10051307
; Publication No. US20020170095A1
; GENERAL INFORMATION:
; APPLICANT: DAI, ZIYU
; APPLICANT: HOOKER, BRIAN S.
; TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF
; FILE REFERENCE: 059440/0141
; CURRENT APPLICATION NUMBER: 09/2051,307
; CURRENT FILING DATE: 2002-01-22
; PRIOR FILING DATE: 2002-01-23
; RIOR FILING DATE: 2001-01-23
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin Ver. 2.1
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     1560 ATGGAGGCAAATAAGTCTATGGTGAAGTTGGTTGCTTTC 1598
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                                                       TGGACAGTTGTTG--CGTACCTCGATAGTGGCAGCATAAGTGAAAGTCACAAAAGCAAGA
                                                                              TGGACAGTTGTTGGCGGTACCTCGATAGTGACAGCATAAGTGAAAGTCACAAAAAGCCAGA
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CURRENT APPLICATION NUMBER: US/10/903,948
CURRENT FILING DATE: 2004-07-30
PRIOR APPLICATION NUMBER: US/10/051,307
PRIOR FILING DATE: 2002-01-22
PRIOR FILING DATE: 2002-01-22
PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 3
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Pred. No. 2.1e-285;
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94.1%;
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LCCATION: (1248)

OTHER INFORMATION: a, t, c

US-10-903-948-3
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Best Local Similarity
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                  601 ATATGTGGACAAATTATTTTTGGTACTTTATATATAGGGATATGGCGGCTTTTGGCACA
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US-10-903-948-3
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661 TGGATATTAATCGTATTATAACAATATCATACTTTGACTAATTATAAACAAATAATA 720 TACAATATGATTTGGTAAACGTTGAGGTGGAAAAATGTATAAGAGCCGCCTAATAATTAA 827

168

Sequence 3, Application US/10903948
Publication No. US20050005324A1
GENERAL INFORMATION:
APPLICANT: DAI, ZIYU
APPLICANT: SHI, LIFANG
APPLICANT: HOOKER, BRIAN S.

708 CGGATATTAATCGTATTATATACCAATATCATACTTTGACTAATTATAAACGAAATATAT

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APPLICANT: Kreps, Joet
APPLICANT: Wang, Xun
APPLICANT: Zhu, Tong
TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING
TITLE OF INVENTION: SAME, AND METHODS OF USE
FILE REFERENCE: SCRIP1300-3
CURRENT APPLICATION NUMBER: US 60/227, 866
PRIOR APPLICATION NUMBER: US 60/227, 866
PRIOR PELING DATE: 2000-08-24
PRIOR PPLICATION NUMBER: US 60/264, 647
PRIOR PLING DATE: 2001-01-16
PRIOR PLING DATE: 2001-01-06-22
NUMBER OF SEQ ID NOS: 5379
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Pred. No. 1.6e-53;
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CURRENT FILING DATE: 2003-01-14
PRIOR APPLICATION NUMBER: 60390249
PRIOR PILING DATE: 2002-06-20
PRIOR APPLICATION NUMBER: 60261029
PRIOR FILING DATE: 2001-01.11
PRIOR FILING DATE: 2001-01.11
PRIOR FILING DATE: 2002-01.14
NUMBER OF SEQ ID NOS: 395
SOFTWARE: Patentin version 3.1
SEQ ID NO 371
LENGTH: 510
                                                                                                                                                                                                                                                                 ; TYPE: DNA
; ORGANISM: Lycopersicon esculentum
US-10-341-961A-371
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 78.5%;
Matches 351; Conservative
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APPLICANT: Curagen Corporation
APPLICANT: Curagen Corporation
APPLICANT: Curagen Corporation
APPLICANT: Swirsky, Peter
APPLICANT: Swirsky, Peter
APPLICANT: Mysore, Kiran
APPLICANT: Martin, Gregory
APPLICANT: Rengren, Sophia
TITLE OF INVENTION: PLANT DEFENSE-RELATED GENES REGULATED IN RESPONSE TO PLANT-PATHOG
FILE REFERENCE: BT1.67A2
CURRENT APPLICATION NUMBER: US/10/341,961A
                                                                                                                                                                                                                                                            CAGATITITICGIGGCCAAAGITICITIGCATACITATICTATGCCCATITITACTITITATGG 1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021 AG---TITITITITICATATIACICGIAIGGAICATITIGITAGAICAAAIGIGAAAATALACAA 1077
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                             TACAATATGATTTGGTAAACGTTGAGGTGGCAAAATGTATAAGAGCCGCCTAATAATTAA 780
                                                                                                                                                                  ATAAACTCTGTAACGTGACGGAATTTTTCTTAAAACTAAATATTAAAAAGCAGCTATTT 947
                                                                        TTATTTTATGAATATAGCCTATAGTTACAAGTTAACTTTATTTTGGTGATAACTTTGACAT
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                                                                                                                                                                           46 GGTATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACATG-----GACCTTGGG
                                                                                             Query Match 12.3%; Score 195.6; DB 11; Length Best Local Similarity 62.3%; Pred. No. 3.2e-32; Matches 365; Conservative 0; Mismatches 204; Indels
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Matthew, Abraham V.
Ledford, Brooke L.
Woessner, Jeffrey P.
Haas, William David
Garcia, Carlos A.
Kricker, Maja
Slader, Ted
Davis, Keith R.
Allen, Keith
Hoffman, Neil
                  ; TYPE: DNA
; ORGANISM: Arabidopsis thaliana
US-09-938-842A-2118
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Rameaka, Joshua G.
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Hamilton, Carol M
Price, Jennifer L
Raines, Tracy M.
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US-09-770-445-334/c
  LENGTH: 735
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Sequence 2118, Application US/09938842A

Publication No. US20040009476A9

GENERAL INFORMATION:

APPLICANT: HATCHER, Joef

APPLICANT: Wang, Xun

APPLICANT: Wang, Xun

TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING

TITLE OF INVENTION: SAME, AND METHODS OF USE

FILE REFERENCE: SCRIP1300-3

CURRENT FILING DATE: 2001-08-24

PRIOR APPLICATION NUMBER: US 60/227,866

PRIOR APPLICATION NUMBER: US 60/227,866

PRIOR APPLICATION NUMBER: US 60/264,647

PRIOR PILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-01-16

SEQ ID NO 2118
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                                                                                                                  Query Match
12.3%; Score 195.6; DB 9; Length 'Best Local Similarity 62.3%; Pred. No. 3.2e-32;
Matches 365; Conservative 0; Mismatches 204; Indels
                                    TYPE: DNA ORGANISM: Arabidopsis thaliana
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US-09-938-842A-2118/c
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SEQ ID NO 2118
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rcaacacgrrrgaacarrcaccgrrrrargrcrgccgracaracrarccgarggcagrrc-
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                                                                                                     TYPE: DNA ORGANISM: Glycine
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                                                                                    LENGTH: 1956
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Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Kovalic David K
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
                                                                                                                                                                                                                                                                                                                                                                                                                                    594 GGCATCTCTGCTTAAAGAATCTTGAGTACTCAGTATCGCTACATGATCCCTGACCGTTCG 535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 TGCAACAATATTGTTGTTCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTT 159
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                                                                                                                                                                                                                                                                                                               tch al Similarity 62.3%; Score 195.6; DB 9; Length al Similarity 62.3%; Pred. No. 3.6e-32; 365; Conservative 0; Mismatches 204; Indels
APPLICANT: Hurban, Patrick
TITLE OF INVENTION: Expressed Sequences of Arabidopsis
TITLE OF INVENTION: thaliana
FILE REFERENCE: 2021US (PARA-012PRV)
CURRENT APPLICATION NUMBER: US/09/770,445
CURRENT FILING DATE: 2001-01-26
PRIOR APPLICATION NUMBER: US 60/178,472
PRIOR FILING DATE: 2000-01-27
NUMBER OF SEQ ID NOS: 999
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                      ; TYPE: DNA
; ORGANISM: Arabidopsis thaliana
US-09-770-445-334
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Best Local S
Matches 365
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1956;
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APPLICANT: Craeta, Oswald R.
APPLICANT: Duvick, Jon
APPLICANT: Hu, Ku
APPLICANT: Lu, Guihua
TITLE OF INVENTION: Sunflower Anti-Pathogenic Proteins and
TITLE OF INVENTION: Genes and their Uses
FILE REFERENCE: 5718-90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 173; DB 18; Length 1 Pred. No. 4.1e-27; 0; Mismatches 225; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: Clone ID: PAT_MRT3847_132800C.1
US-10-424-599-36321
                                                                                                                                                                                                                                                                                                                                                      LOCATION: (1)..(1956)
OTHER INFORMATION: unsure at all n locations
CURRENT APPLICATION NUMBER: US/10/424,599 CURRENT FILING DATE: 2003-04-28 NUMBER OF SEQ ID NOS: 285684 SEQ ID NO 36321
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Publication No. US20040073971A1
GENERAL INPORMATION:
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Best Local Similarity 59.5%;
Matches 355; Conservative
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458

988

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Sequence 103619, Application US/10424599
Publication No. US20040031072A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Acvalic David K
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
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                                                                                                                                                                                                                                                                                                                            Score 170.4; DB 19;
Pred. No. 1e-26;
                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches 211;
                     CURRENT APPLICATION NUMBER: US/10/636,026
CURRENT FILING DATE: 2003-08-07
PRIOR APPLICATION NUMBER: US/09/589,733C
PRIOR PILING DATE: 2000-06-08
PRIOR PILING DATE: 1999-06-23
PRIOR APPLICATION NUMBER: 60/140,646
PRIOR APPLICATION NUMBER: 60/162,904
PRIOR FILING DATE: 1999-11-01
NUMBER OF EQ. ID NOS: 41
SEQ. ID NO 4
                                                                                                                                                                                                                                                                                                                          10.7%;
                                                                                                                                                                                                                                                                      ; ORGANISM: Helianthus annuus US-10-636-026-4
                                                                                                                                                                                                                                                                                                                                                                 Matches 325; Conservative
                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
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US-10-424-599-103619/c
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                                                                                                                                                                                                                                                                                                             Length 875;
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Publication No. US20040111761A1
GENERAL INFORMATION:
APPLICANT: Bidney, Dennis L.
APPLICANT: Crasta, Oswald R.
APPLICANT: Duvick, Jon
APPLICANT: Hu, Xu
APPLICANT: Lu, Guiua
APPLICANT: Lu, Guiua
TITLE OF INVENTION: Sunflower Anti-Pathogenic Proteins and
TITLE OF INVENTION: Genes and their Uses
                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                           Score 170.4; DB 18;
Pred. No. 1e-26;
0; Mismatches 211;
                       CURRENT FILING DATE: 2003-08-07
PRIOR APPLICATION NUMBER: U$/09/589,733C
PRIOR PILING DATE: 2000-06-08
PRIOR APPLICATION NUMBER: 60/140,646
PRIOR PILING DATE: 1999-06-23
PRIOR PILING DATE: 1999-11-01
PRIOR PILING DATE: 1999-11-01
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 4
CURRENT APPLICATION NUMBER: US/10/636,396
CURRENT FILING DATE: 2003-08-07
                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 59.7%;
Matches 325; Conservative
                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Helianthus annuus
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US-10-636-026-4/c
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APPLICANT: Mang, Xun
APPLICANT: Chang, Hur-song
APPLICANT: Chang, Hur-song
APPLICANT: Coper, Bret
APPLICANT: Goff, Stephen A.
APPLICANT: Most Manuer, Todd
APPLICANT: Kreps, Joel
APPLICANT: Kreps, Joel
APPLICANT: Ricke, Darrell
APPLICANT: Ricke, Darrell
TITLE OF INVENTION GENES THAT ARE MODULATED BY POSTTRANSCRIPTIONAL GENE SILENCING
FILE REFERENCE: 70030-NP
CURRENT APPLICATION NUMBER: US/10/259,165
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                                                                                                                                                                                                                                                      GGTATCTTTGTTTGAAAAATTGGAAAAGGACGTAGGACCATGGACCTTGGGTGCAAC 105
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                                                                                                                                                                                         Length 909
                                                                                                                                                                                         Score 167; DB 18; Length 9
Pred. No. 5.7e-26;
0; Mismatches 205; Indels
                                                                                                                           ; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT3847_64586C.1
US-10-424-599-103619
FILE REFERENCE: 38-21(53223)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 103619
LENGTH: 909
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Publication No. US20030135888A1
GENERAL INFORMATION:
                                                                                                                                                                                         Query Match
Best Local Similarity 60.7%;
Matches 327; Conservative
                                                                                              TYPE: DNA ORGANISM: Glycine max
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PRIOR APPLICATION NUMBER: US 60/370,620

PRIOR APPLICATION NUMBER: US 60/370,620

PRIOR PILING DATE: 2002-04-04

PRIOR PILING DATE: 2002-03-27

PRIOR FILING DATE: 2001-09-26

NUMBER OF SEQ 1D NOS: 782

SEQ 1D NO 389

LENGTH: 717

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Sequence 7, Appli Patent No. 5221624 Patent No. 5221624

Sequence 1, Appli Patent No. 5221624 Patent No. 5221624

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US-08-436-599B-1
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Sequence 1, Appli Sequence 15851, A Sequence 15852, A Sequence 15853, A

ALIGNMENTS

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Total number of hits satisfying chosen parameters:

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1202784 seqs, 818138359 residues

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1 Sequence 1, Application US/08482037A

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SUMMARIES

8

Query Match Length

Issued Patents NA:*

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JOSEPH 1980-4/C
Sequence 4, Application US/07828798C
Patent No. 5389609
GENERAL INFORMATION:
APPLICANT: Woloshuk, Charles P.
APPLICANT: Melchers, Leo S.
APPLICANT: Melchers, Bernardus J. C.
APPLICANT: Meulenhoff, Elisabeth J. S.

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with
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Blzen, Petrus J.
TITLE OF INVENTION: Antifungal Preparations, Process for
TITLE OF INVENTION: Making Such Preparations, Process for Obtaining Plants
TITLE OF INVENTION: Decreased Susceptibility to Fungi
CORRESPONDENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                546
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                                                                                                                                                                                                                                                                          Kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93;
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Pred. No. 9.2e-96;
); Mismatches 93
                                                                                                                                                                                                                                                  COMPOTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 36(
COMPUTER: IBM PC/XT/AT or compatibles
OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                             SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/828,798C
FILING DATE: 06-APR-1992
CLASSIFICATION: 514
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APPLICATION NUMBER: PCT/NL91,
FILING DATE: 31-05-91
ATTORNEY/AGENT INFORMATION:
NAME: MASS, Clifford J.
REGISTRATION NUMBER: 30086
                                                                                                                                     ADDRESSEE: Ladas & Parry
STREET: 26 West 61st Street
CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nicotiana tabacum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: U-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 708-1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27.0%;
84.1%;
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Best Local Similarity 84.1
Matches 497; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: Nucleotide
STRANDEDNESS: Double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: Linear
                                                                                                                                                                                            STATE: New York COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGINAL SOURCE:
ORGANISM: Nic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                              COUNTRY:
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Sequence 4, Application US/08495819B
Patent No. 6087161
GENERAL INFORMATION:
APPLICANT: Woloshuk, Charles P.
APPLICANT: Cornelisen, Bernardus J. C.
APPLICANT: Mellenhoff, Elisabeth J. S.
APPLICANT: Ala Bernardus J. C.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Elzen, Petrus J. M.
TITLE OF INVENTION: Antifungal Preparations, Process for TITLE OF INVENTION: With Decreased Susceptibility to Fungi
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS: 7

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   Gaps
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   93; Indels
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MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb storage COMPUTER: IBM PC/XY/AT or compatibles
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/495,819B
FILING DATE: 31-MAY-1995
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26 West 61st Street
497; Conservative
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OPERATING SYSTEM:
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STATE: New York
COUNTRY: USA
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APPLICANT: Melchers, Leo S.
APPLICANT: Cornelissen, Bernardus J. C.
APPLICANT: Melchenfoff, Eliabeth J. S.
APPLICANT: Melchenfoff, Eliabeth J. S.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Elzen, Petrus J. M.
APPLICANT: Van Den Elzen, Petrus J. M.
TITLE OF INVENTION: Making Such Preparations, Process for TITLE OF INVENTION: Decreased Susceptibility to Fungi
NUMBER OF SEQUENCES:
ADDRESSEE: Ladas & Parry
STREET: 26 West 61st Street
CITY: New York
STATE: New York
COUNTRY: USA
                                                                                                                                       CAGCATTGAAGTTACAATTAGTACGGCCCCATACACGTGCCATTTTAGTACCTCGTGGCG 186
                                                                                             CATCAATGACCCACATTTGGCCCCGGATCGAAACGTCGG-CACCCGCTTTCGGGGTCGATG 524
                                                                                                                                                                                                                              CCGCCCAAACGATGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGTGAAAG 584
                                                                                                                                                                                                                                                                                  TCACAAAAGCAAGAAGGGAGAAAACAAAAGAAGATCTCAAGTAGCCCATGT 635
                                                                                                                                                                                                                                                                                                                                                                                                                                65 TCACCAAGGCAAGGAAGAAACAAAAGAAGATCTCAAGTTGCCCATGT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 883;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360 Kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27.0%; Score 430.2; DB 2;
84.1%; Pred. No. 9.2e-96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 10023
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 36C
COMPUTER: IBM PC/XT/AT or compatibles
OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURKENT APPLICATION DATA:
APPLICATION NUMBER: US/08/315,868A
FILING DATE: 09-SEP-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/828,798
FILING DATE: 06-APR-1992
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 31-05-91
ATTONNEY,AGENT INFORMATION:
NAME: MASS, Clifford J.
REGISTRATION NUMBER: 30086
REFERENCE/DOCKET NUMBER: 30086
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 1008-1800
TELECOMMUNICATION 1008-1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-315-868A-4/c
; Sequence 4, Application US/08315868A
; Patent No. 5856151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Woloshuk, Charles P. APPLICANT: Melchers, Leo S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nicotiana tabacum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Word Perfect 5.1 CURRENT APPLICATION DATA:
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SEQUENCE CHARACTERISTICS:
LENGTH: 883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: Double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Linear
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM:
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TELEX: 233288
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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                                                                                   PRIOR APPLICATION DATE:
APPLICATION NUMBER: 07/828,798
FILING DATE: 06-APRIL-92
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 31-05-91
ATTORNEY/ACENT INFORMATION:
NAME: Mass, Clifford J.
REGISTRATION NUMBER: 30086
REFERENCE/DOCKET NUMBER: U-010255-1
APPLICATION NUMBER: 08/315,868
FILING DATE: 30-SEPT-94
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MOLECULE TYPE: CDNA
ORIGINAL SOURCE:
ORGANISM: Nicotiana tabacum
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 708-1800
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Best Local Similarity 84.1%;
Matches 497; Conservative
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 883
TYPE: Nucleotide
STRANDEDNESS: Double
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APPLICANT: Woloshuk, Charles P.
APPLICANT: Melchers, Leo S.
APPLICANT: Melchers, Leo S.
APPLICANT: Cornelissen. Bernardus J. C.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Blzen, Petrus J. M.
TITLE OF INVENTION: Antifungal Preparations, Process for TITLE OF INVENTION: Decreased Susceptibility to Fungi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          46 GGTATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAAC 105
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  166 GACCAGGGCATTCACCATTTATATTTGCCGTGCATTGAATTGTGTGGCATTTCCCTCCAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb storage
COMPUTER: IBM PC/XT/AT or compatibles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93;
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Pred. No. 9.2e-96;
0; Mismatches 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 31-05-91
ATTORNEY/AGENT INFORMATION:
NAME: MASS, Clifford J.
REGISTRATION NUMBER: 30086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/828,798C
FILING DATE: 06-APR-1992
; Sequence 5, Application US/07828798C
; Patent No. 5389609
                                                                                                                                                                                                                                                                                                                                                             2: Ladas & Parry
26 West 61st Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: U-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 708-1800
TELEFAX: (212) 246-8959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nicotiana tabacum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: DOS
SOFTWARE: Word Perfect 5.1
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Best Local Similarity 84.1%;
Matches 497; Conservative C
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                                                                                                                                                                                                                                       Score 430.2; DB 2;
Pred. No. 9.2e-96;
0; Mismatches 93;
                                                                                                                                              ORGANISM: Nicotiana tabacum
                                                                                                                                                                                                                                   tch 27.0%;
al Similarity 84.1%;
497; Conservative
                            Double
                                                                                  CDNA
TYPE: Nucleotide
                                                     Linear
                                                                                  MOLECULE TYPE: O
                            STRANDEDNESS:
TOPOLOGY: Li
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US-08-315-868A-5
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APPLICANT: Woloshuk, Charles P.
APPLICANT: Woloshuk, Charles P.
APPLICANT: Melchers, Leo S.
APPLICANT: Cornelissen, Bernardus J. C.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Sela-Buurlage, Marianne B.
APPLICANT: Van Den Elzen, Petrus J. M.
APPLICANT: Van Den Elzen, Petrus J. M.
APPLICANT: Van Den Elzen, Petrus J. M.
TITLE OF INVENTION: Making Such Preparations, Process for Obtaining Plants with TITLE OF INVENTION: Decreased Susceptibility to Fungi
NUMBER OF SEQUENCES:
ADDRESSEE: Ladas & Parry
STREET: 26 West 61st Street
                            AGAAATCTAAGTTGTTGAACTGGTCCAAGGCGTACTCGGCTAGGGTGTTTGGTGGTTTTGC 345
                                                                                  365 AGAAATCTAAACCACTGAATTGGTCCAAAGCGTATTCAGCCAAGGTGTTTGGTGGTTTAC 306
                                                                                                                                              CCCACCCGGTGCACTGCAGGACACCACCACCAGTCACCAGTCATGCACGAACCTCTACCAG 405
                                                                                                                                                                                                       CACCATCGAAGTTACATCCAGTACGACCCCATATACCTGCCATCGTAGTGCCCCTAGGCG 465
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGCCCAAACGATGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGTGAAAG 584
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 10023
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 360
COMPUTER: IBM PC/XT/AT or compatibles
OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUPTAINES STATES.

SUPTAINES STATES.

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/315,868A
FILING DATE: 09-SEP-1994
CLASSIFICATION NUMBER: 07/828,798
RAPPLICATION NUMBER: 07/828,798
FILING DATE: 06-APR-1992
APPLICATION NUMBER: PCT/NL91/00089
FILING DATE: 31-05-91
ATTORNAY/AGENT INFORMATION:
NAME: MASS, Clifford J.
REGISTRATION NUMBER: 30086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: U-8622-6
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 708-1800
TELEFAX: (212) 246-8959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
US-08-315-868A-5/c
'Sequence 5, Application US/08315868A
'Parent No. 5856151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 233288
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: New York
STATE: New York
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Wolosh
                            988
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185 CATTGATCACCCCAAGTTTGGCCTCGATCGAGACGCCGGCCACCGCCTATGGGTGTCGACG 126
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGGCATTCACCATTTATATTTGCCGTGCATTGAATTGTGTGGCATTTCCCTCCACTTG 228
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     223 carcaaactrocaarrocrrcegececeararacegerecrerecrerecaeceaece 164
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                                                                                                                       125 cceccaaacegreracegacagrerrerresacceccaracrescacaraagraras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAATGTCCCAGA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   49 ATCTTTGTTTGAAAAATTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAACAAT
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                                                                                                                                                                                        8;
                                                                                                                                                                                                                        Length 875;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Crasts, Oswald R.
APPLICANT: Duvick, Jon
APPLICANT: Duvick, Jon
APPLICANT: Lu, Guinua
TITLE OF INVENTION: Sunflower Anti-Pathogenic Proteins and
TITLE OF INVENTION: Genes and their Uses
TITLE REPERBYCE: 5718-90
CURRENT APPLICATION NUMBER: 06/140,646
PRIOR APPLICATION NUMBER: 60/140,646
PRIOR APPLICATION NUMBER: 60/140,646
PRIOR APPLICATION NUMBER: 60/162,904
PRIOR FILING DATE: 1999-01-01
NUMBER OF SEQ ID NOS: 41
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 170.4; DB 4;
Pred. No. 5e-32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches 211;
                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4, Application US/09589733C
Patent No. 6677503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10.7%;
59.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Baldney, Dennis L.
APPLICANT: Crasta, Oswald R.
APPLICANT: Duvick, Jon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Helianthus annuus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 59.7
Matches 325; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                426
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACCATCGAAGTTACATCCAGTACGACCCCATATACCTGCCATCGTAGTGCCCCTAGGCG 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATCAATGACCCACATTTGGCCCCGATCGAAACGTCGG-CACCCGCTTTCGGGGTCGATG 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        radderradroddddaaagrcarcddaagrcricaarccarcaacraaagaargrccc 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTATCTTTGTTTGAAAATTTGGAAAAGAACGTAGGACCACATGGACCTTGGGTGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              605 GCCATCTTTGTTTTGABAATTTTGAGAAAATGTAGGACCACAAGGTCCTTGTGTGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         545 AATATTGTTGTCCTCCGAATGTAGTACAAGGGTTATTACATCCTCCGGGAACCCTAAGTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                         ZIP: 10023
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb storage
COMPUTER: IBM PC/XI/AI or compatibles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 27.0%; Score 430.2; DB 3; Best Local Similarity 84.1%; Pred. No. 9.2e-96; Matches 497; Conservative 0; Mismatches 93;
                                                                                                                                                                        CURRENT APPLICATION DATA:

SOFTWARE: Word Perfect

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/495,819B
FILING DATE: 31-MAY-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/315,868
FILING DATE: 30-SEPT-94
PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/828,798
FILING DATE: 06-APRIL-92
PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/828,798
FILING DATE: 31-05-91
ATTORNEY/AGENT INFORMATION:

NAME: Mass, Clifford J.

REGISTRATION NUMBER: 30086
REFERENCE/DOCKET NUMBER: 3008
TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION NUMBER: 3008
TELECAMINICATION PROPRATION:

TELECOMMUNICATION PROPRATION:

TELECOMMUNICATION PROPRATION:

TELECOMMUNICATION PROPRATION:

TELECOMMUNICATION PROPRATION:

TELECOMMUNICATION PROPRATION:

TELECAMINICATION PROPRATION PROPR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: Nucleotide
STRANDEDNESS: Double
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: CDNA ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Linear
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160 TAAGTIGACCAGGCATICACCATITATATTTGCCGTGCATTGAATTGTGTGGCATTTCC 219
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       400 TACCAGCACCATCGAAGTTACATCCAGTACGACCCCATATACCTGCCATCGTAGTGCCCC 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 259 geccacreccarceaagrigeaarrecarceacceaaareceacceacrerrere 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      520 CGATGCCGCCCAAACGATGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGT 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       431 ----CCTCCATTGGTCGGGCTGAATTCCATGGGGATGTTAAATCCATCAACAAGAGAGA 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376 rerceacaaagre---crearreserrearraagrecaaarreacraaagrerragere 320
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        607 GGCATCTTTCCTTAAAAATCTCGACAAATCAGTAGGCCCACATGATCCAGGCCCATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 IGCAACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTCCCAGAAATCTAAGTTGTTGAACTGGTCCAAGGCGTACTCGGCTAGGGTGTTTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            319 chrindcanágodnigacáchcháacánodomhóaghchcháathacht
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              460 TAGGCGCATCAATGACCCACATTTGGCCCCGATCGAAACGTCGGCACCCGCTTTCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               547 TACAACAATATTCATTGGTTTTTATCACAGTACATGGGTTGTTACATCCACCTTGTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220 CTCCACTTGGATTAGTCGGGGCGAAAGTCATCGGTATATTAAATCCATCAACTAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 900;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9.7%; Score 155.2; DB 1;
60.5%; Pred. No. 2.7e-28;
tive 0; Mismatches 198;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Elmer, James Scott
REGISTRATION NUMBER: 36,129
REFERENCE/DOCKET NUMBER: 8-19825/P1/CGC 1727
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                             APPLICATION NUMBER: US 07/368,672
FILING DATE: 20-JUN-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/329,018
FILING DATE: 24-MAR-1989
PRIOR APPLICATION NUMBER: US 08/045,957
                                                                                                                      APPLICATION NUMBER: US 07/768,122 FILING DATE: 27-SEP-1991 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/580,431 FILING DATE: 7-SEP-1990 PRIOR APPLICATION DATA:
                                                          JMBER: US 07/848,506
6-MAR-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: (919)541-8614
                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 12-APR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (1919)541-8689 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best_Local Similarity 60.5
Matches 334; Conservative
                    FILING DATE: 20-OCT 1
PRIOR APPLICATION DATA:
APPLICATION NUMBER: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                FILING DATE: 6-MAR-1.
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
APPLICATION NUMBER:
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                      CCAAACGATGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGTGAAAGTCAC 588
                                                          105 CCAAACGGTGTATGGACAGTTGTTTCGAATAGTGAACACGGCTGCATTGGTATAGTGAAA 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Williams, Shericca C. TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF NUMBER OF SEQUENCES: 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/181,271A
FILLING DATE: 13-JAN-94
CLASSIFICATION: 435
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PRIOR PAPLICATION NUMBER: US 07/678,378
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/305,566
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/165,667
PRILING DATE: 8-MAR-1988
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/093,301
FILING DATE: 16-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-NOV-1992
PRIOR APPLICATION DATA:
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FILING DATE: 6-APR-1993
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                               ; Sequence 4, Application US/08181271A; Patent No. 5614395; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Meins, Jr., Frederick
Montoya, Alice
                                                                                                                                                                                                                                                                                                                                                                                                       Friedrich, Leslie B.
Goodman, Robert M.
Harms, Christian
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Sperison, Christoph
Stinson, Jeffrey R.
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Beck, James J.
Duesing, John H.
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Neuhaus, Jean-Marc
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Ward, Eric R.
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FILING DATE: 21-DEC
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CITY: Hawthorne
STATE: New York
COUNTRY: USA
                                                                                                      589 AAAA 592
                                                                                                                                            AAGA 42
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US-08-181-271A-4/c
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141 GCCGCGGGCCCAGACTGTGTAGGTTTTTTTTGTTGAAATGTCAAAAGTGGCAGCATGAGT
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TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 10532

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRICK APPLICATION DATA:
APPLICATION NUMBER: 08/181,271
FILING DATE: 13-JAN-94
APPLICATION NUMBER: 08 08/093,301
FILING DATE: 16-JUL-1993
PRICK APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-NOV-1992
APPLICATION NUMBER: US PRICK APPLICATION DATA:
APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-APR-1991
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CORRESPONDENCE ADDRESS:
ADDRESSEE: CIBA-GEIGY Corporation
STREET: 7 Skyline Drive
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APPLICATION NUMBER: US 07/305,566
FILING DATE: 6-FEB-1989
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APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-MAR-1988
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FILING DATE: 24-MAY-1995
CLASSIFICATION: 800
                                                                                                                                                                                                                                                                                    Duesing, John H.
Friedrich, Leslie B.
Goodman, Robert M.
Harms, Christian
Meins, Jr., Frederick
Montoya, Alice
                                                                                                                                           RESULT 10
US-08-449-315-4/c
; Sequence 4, Application US/08449315
; Parent No. 5650505
                                                                                                                                                                                                                                                                                                                                                                                              Moyer, Mary B.
Neuhaus, Jean-Marc.
Payne, George B.
Sperison, Christoph
Stinson, Jeffrey R.
Uknes, Scott J.
Ward, Eric R.
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Alexander, Danny C.
Beck, James J.
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                                                     580 GAAAGTCACAAA 591
                                                                                         81 AACAGCTACAAA 70
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STATE: New York
COUNTRY: USA
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APPLICANT: Ryals,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 12.4PR-1993
ATTORNEY/AGENT INFORMATION:
RAME: Elmer, James Scott
REGISTRATION NUMBER: 36,129
REFERENCE/DOCKET NUMBER: S-19825/P1/CGC 1727
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                   FILING DATE: 6-MRR-1992

FILING DATE: 6-MRR-1992

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/768,122

FILING DATE: 27-SEP-1991

FILING DATE: 7-SEP-1990

FILING DATE: 7-SEP-1990

PRIOR APPLICATION NUMBER: US 07/368,672

FILING DATE: 20-JUN-1989

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/369,018

FILING DATE: 24-MRR-1989

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/329,018

FILING DATE: 24-MRR-1989

PRIOR APPLICATION NUMBER: US 08/045,957
                                                                                                                                                                UMBER: US 07/848,506
6-MAR-1992
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900 base pairs
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APPLICATION NUMBER:
                                                                                                                                                                             APPLICATION NUMBER:
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US-08-444-803-4
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141 GGCCGGGCCCAGACTGTGTAGGTGCATTTGTTGACAATGTCAAAAGTGGCAGCATGAGT 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF TOWNERS OF SEQUENCES: 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Riopy disk
COMPUTER: Flopy disk
COMPUTER: -IBM PC compatible
SOFFWARE: Patentin Release #1.0, Version #1.25
SOFFWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/444,803
FLING DATE: 19-MAY-1995
PRIOR APPLICATION NUMBER: US 08/093,301
FILING DATE: 16-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937,197
FILING DATE: 6-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PADLICATION NUMBER: US 07/678,378
FILING DATE: 1-ARE-1991
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 07/305,566
FILING DATE: 6-FEB-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-MAR-1988
PRIOR APPLICATION NUMBER: US 08/042,847
FILING DATE: 6-APR-1993
RAPLICATION NUMBER: US 08/042,847
FILING DATE: 2-DEC-1990
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CIBA-GEIGY Corporation
                                                                                                                                                                                                                                                                                                                                          Harms, Christian
Meins, Jr., Frederick
Montoya, Alice
                                                                                                                                                                                                                                                                                                                                                                                              Moyer, Mary B.
Neuhlaus, Jean-Marc
Payne, George B.
Sperison, Christoph
Stinson, Jeffrey R.
Uknes, Scott J.
                                                                                                                                       RESULT 11
US-08-444-803-4/C
Sequence 4, Application US/08444803;
Patent No. 5654414;
GENERAL INFORMATION:
APPLICANT: Ryals, John A.
APPLICANT: Ryals, John A.
                                                                                                                                                                                                                                                                                                       Friedrich, Leslie B.
Goodman, Robert M.
                                                                                                                                                                                                                                                   Alexander, Danny C.
Beck, James J.
Duesing, John H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7 Skyline Drive
                                                     580 GAAAGTCACAAA 591
                                                                                     81 AACAGCTACAAA 70
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ADDRESSEE: CIBA-GEIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Hawthorne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
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APPLICANT:
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APPLICANT:
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60.5%; Pred. No. 2.7e-28;
live 0; Mismatches 198;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Elmer, James Scott
REGISTRATION NUMBER: 36,129
REFERENCE DOCKET NUMBER: 3-19825/P1/CGC 1727
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919)541-8619
TELEPHONE: (919)541-8689
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 900 base pairs
                                                                                                          FILING DATE: 6-MAR-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/768,122
FILING DATE: 27-SEP-1991
PRIOR APPLICATION NUMBER: US 07/580,431
FILING DATE: 7-SEP-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/368,672
FILING DATE: 20-UUN-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/329,018
FILING DATE: 24-MAR-1989
                                                                                    US 07/848,506
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APPLICATION NUMBER: US 0
FILING DATE: 12-APR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 60.5
Matches 334; Conservative
                               FILING DATE: 20-OCT 1 PRIOR APPLICATION DATA: APPLICATION NUMBER: 0
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STRANDEDNESS: single
APPLICATION NUMBER:
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141 GGCCGCGCGCAGACTGTGTAGGTCATTTGTTGACAATGTCAAAAGTGGCAGCATGAGT 82
                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Sperieon, Christoph
APPLICANT: Stinson, Christoph
APPLICANT: Stinson, Jeffrey R.
APPLICANT: Uknes, Scott J.
APPLICANT: Ward, Eric R.
TITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
NUMBER OF SEQUENCES: 106
CORRESPONDENCE ADDRESS:
ADDRESSE: CIRA-GEIGY Corporation
STREET: 7 Skyline Drive
CITY: Hawthorne
STATE: New York
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/49,043

FILING DATE: 24-MAY-1995

CLASSIFICATION: 800

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/181,271

FILING DATE: 16-70L-1993

PRIOR APPLICATION NUMBER: US 07/937,197

FILING DATE: 6-NOV-1992

PRIOR APPLICATION NUMBER: US 07/937,197

FILING DATE: 1-APR-1991

PRIOR APPLICATION NUMBER: US 07/678,378

FILING DATE: 1-APR-1991

PRIOR APPLICATION NUMBER: US 07/678,378

FILING DATE: 1-APR-1991

PRIOR APPLICATION NUMBER: US 07/678,378

FILING DATE: US 07/305,566
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APPLICATION DATA:
APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-MAR-1988
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 08/042,847
FILING DATE: 6-APR-1993
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APPLICATION NUMBER: US 07/632,441
FILING DATE: 21-DEC-1990
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 10532
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                       Harms, Christian
Meins, Jr., Frederick
Montoya, Alice
Moyer, Mary B.
                                                                                                                                                                                       Sequence 4, Application US/08449043
Patent No. 5689044
                                                                                                                                                                                                                                                                                               Duesing, John H.
Friedrich, Leslie B.
Goodman, Robert M.
                                                                                                                                                                                                                                              Ryals, John A.
Alexander, Danny C.
Beck, James J.
                                                         580 GAAAGTCACAAA 591
                                                                                            81 AACAGCTACAAA 70
                                                                                                                                                                                                                           GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             487 TCAACTGTGCTGGGCATTGTTCGTTAATAGGTGCTGTGCATCTGAGATTACGACAT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              280 TGTCCCAGAAATCTAAGTTGTTGAACTGGTCCAAGGCGTACTCGGCTAGGGTGTTTGGTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  607 GGCATCTTTCCTTAAAAATCTCGACAAATCAGTAGGCCCACATGATCCAGGCCCATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 TGCAACAATATTGTTGTCCTCCAAATGTGGTACAAGGATTGTTACATCCTCCGGGTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        547 racaacaararrcarrcerrrrrarcacagracaregerrerracarccaccrrererr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----cerccarregregecreaarrecaregearerraarrecareacaacaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             376 TGTCGACAAAGTC---CTGATTGGGTTGATTAAGTGCAAATTCAGCTAAAGTGTTAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   460 TAGGCGCATCAATGACCCACATTTGGCCCCCGATCGAAACGTCGGCACCCCCTTTCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 900;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   46 GGTATCTTTGTTTGAAAAATTGGAAAGAACGTAGGACCACAT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 155.2; DB 1;
Pred. No. 2.7e-28;
0; Mismatches 198;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 36,129
REFERENCE/DOCKET NUMBER: S-19825/P1/CGC 1727
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919)541-8614
TELEFAX: (919)541-8600
APPLICATION NUMBER: US 07/425,504
FILING DATE: 20-0CT 1989
RIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/848,506
FILING DATE: 6-MAR-1992
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
FILING DATE: 7-SEP-1991
FILING DATE: 7-SEP-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/580,431
FILING DATE: 20-JUN-1989
FILING DATE: 20-JUN-1989
FILING DATE: 24-MAR-1989
FILING DATE: 24-MAR-1989
FILING DATE: 12-APR-1989
FILING DATE: 12-APR-1989
FILING DATE: 12-APR-1983
ATTORNEY/AGENT INFORMATION
NAME: EIBMEY, JAMES SCOCT
NAME: EIBMEY, JAMES SCOCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 60.59
Matches 334; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (919)541-8689 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : 900 base pairs
nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-449-043-4
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US-08-455-416-4/c; Sequence 4, Application US/08455416; Patent No. 5777200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 900 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  580 GAAAGTCACAAA 591
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-456-265A-4
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141 GGCCGCGGCCCAGACTGTGTAGGTGCATTTGTTGACAATGTCAAAAGTGGCAGCATGAGT 82
                                                                                                                                                                                                                                                                                                        Sequence 4, Application US/08456265A
| Sequence 4, Application US/08456265A
| Patent No. 5767369
| GENERAL INFORMATION:
| APPLICANT: Alexander, Danny C. APPLICANT: Ryals, John A. APPLICANT: Stinson, Jeffrey M. APPLICANT: Stinson, Jeffrey M. APPLICANT: Stinson, Jeffrey M. APPLICANT: Goodman, Robert M. APPLICANT: Goodman, Robert M. APPLICANT: Stinson, Jeffrey M. APPLICANT: Stinson, Jeffrey M. APPLICANT: Stinson, Jeffrey M. APPLICANT: Stinson, Jeffrey M. APPLICANT: TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
| TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
| TITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
| CORRESPONDENCE ADDRESS: ADDRESSE: ADDRESSE: CIBA-GEIGY COrporation STREET: S20 White Plains Road, P.O. Box 2005
| CITY: Tarrytown STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US (08/456,265A

FILING DATE: JI-MAY-95

CLASSIFICATION: 435

PRIOR APPLICATION NUMBER: US (08/181,271

FILING DATE: JI-JAN-1994

PRIOR APPLICATION NUMBER: US (08/093,301

FILING DATE: LI-JUL-1993

PRIOR APPLICATION NUMBER: US (07/937,197

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US (07/937,197

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US (07/937,197

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US (07/305,566

FILING DATE: G-FEB-1989

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US (07/45,667

FILING DATE: G-FEB-1989

PRIOR APPLICATION NUMBER: US (07/32,441

FILING DATE: G-EB-1989

PRIOR APPLICATION NUMBER: US (07/32,441

FILING DATE: G-EC-1990

PRIOR APPLICATION NUMBER: US (07/425,504

FILING DATE: Z0-OCT 1989

PRIOR APPLICATION NUMBER: US (07/425,504

FILING DATE: Z0-OCT 1989

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US (07/848,506

PRIOR APPLICATION DATA:

APPLICATION UMBER: US (07/848,506

PRIOR APPLICATION DATA:

APPLICATION UMBER: US (07/848,506

PRIOR APPLICATIO
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/768,122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 27-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/580,431
FILING DATE: 7-SEP-1990
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                      580 GAAAGTCACAAA 591
                                                                                                                                                          81 AACAGCTACAAA 70
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US-08-456-265A-4/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 155.2; DB 1; Length 900;
Pred. No. 2.7e-28;
0; Mismatches 198; Indels 20
APPLICATION NUMBER: US 07/368,672
FILING DATE: 20-JUN-1989
PRIOR APPLICATION NATA:
APPLICATION NUMBER: US 07/329,018
FILING DATE: 24-MAR-1989
RIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/045,957
FILING DATE: 12-APR-1993
ATTORNEY/AGENT INFORMATION:
NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: 8-19825/P1/CGC 1727/DIV10
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 9.7%;
Best Local Similarity 60.5%;
Matches 334; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: (919)541-8587
TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO: 4;
SEQUENCE CHARACTERISTICS:
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GREENLY REPORTED:

APPLICANT: Alexander, Danny C.
APPLICANT: Alexander, Danny C.
APPLICANT: Alexander, Danny C.
APPLICANT: Alexander, Danny C.
APPLICANT: Desaring Journal of the Communication of the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          487 TCAACTGTGCTGGGCATTGTTCGTTAATAGGTGCTGTGCATCTGAGATTACGACAT---- 432
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      520 CGATGCCGCCCAAACGATGTATGGACAGTTGTTGCGTACCTCGATAGTGGCAGCATAAGT 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  160 TAAGTIGACCAGGGCATTCACCATTTATATTTGCCGTGCATTGAATTGTGTGGCATTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               280 TGTCCCAGAAATCTAAGTTGTTGAACTGGTCCAAGGCGTACTCGGCTAGGGTGTTTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   319 CITITCCATAGCCTTGACACTCTAACATCCCGTTACAGTCTCCAGTCTCACAATTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     607 GGCATCTITCCTIAAAAAATCTCGACAAATCAGTAGGCCCACATGATCCAGGCCCATTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 900;
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FILING DATE: 20-JUN-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/329,018
FILING DATE: 24-MAR-1989
PRIOR APPLICATION NUMBER: US 08/045,957
FILING DATE: 12-APR-1933
ATTORNEY/AGENT INFORMATION:
NAME: Elmer, James Scott
REGISTRATION NUMBER: 36,129
REFERENCE/DOCKET NUMBER: 8-19825/P1/CGC 1727
TELECOMMUNICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 155.2; DB 1;
Pred. No. 2.7e-28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches 198;
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; Sequence 4, Application US/08455244
; Patent No. 5789214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9.7%;
                                                                                                                                                                                                                                                TELEPHONE: (919)541-8614
TELEPAX: (919)541-8689
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                             LENGTH: 900 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 60.5
Matches 334; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic
STRANDEDNESS:
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IITLE OF INVENTION: CHEMICALLY REGULATABLE AND ANTI-PATHOGENIC
IITLE OF INVENTION: DNA SEQUENCES AND USES THEREOF
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/455,244
FILING DATE: 13-MAY-1995
CLASSIPICATION NUMBER: US/08/455,244
FILING DATE: 13-MAY-1995
APPLICATION NUMBER: US 08/093,301
FILING DATE: 13-JAN-94
APPLICATION NUMBER: US 08/093,301
FILING DATE: 16-JUL-1993
PRIOR APPLICATION NUMBER: US 07/937,197
FILING DATE: 1-MAY-1992
PRIOR APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-MAY-1991
PRIOR APPLICATION NUMBER: US 07/678,378
FILING DATE: 1-MAY-1991
PRIOR APPLICATION NUMBER: US 07/105,566
FILING DATE: 6-FEB-1899
PRIOR APPLICATION NUMBER: US 07/165,667
FILING DATE: 8-MAY-1988
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PRIOR APPLICATION DATA:
APPLICATION UNDRER: US 08/042,847
FILING DATE: 6-APR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/632,441
FILING DATE: 21-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/425,504
FILING APPLICATION DATA:
APPLICATION NUMBER: US 07/425,504
FILING DATE: 20-0CT 1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/848,506
FILING DATE: 6-MAR-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E: CIBA-GEIGY Corporation 7 Skyline Drive
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/580,431
FILING DATE: 7-SEP-1990
PRIOR APPLICATION DATA:
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FILING DATE: 27-SEP-1991
                                                         Duesing, John H.
Friedrich, Leslie B.
Goodman, Robert M.
Harms, Christian
Meins, Jr., Frederick
Montoya, Alice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 10532
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                           Neuhaus, Jean-Marc
Payne, George B.
Sperison, Christoph
Stinson, Jeffrey R.
Uknes, Scott J.
                                                                                                                                                                                                                                                                                                                                                                       Williams, Shericca C.
Ryals, John A.
Alexander, Danny C.
                                           Beck, James J.
                                                                                                                                                                                                             Moyer, Mary B.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
ADDRESSEE: CIBA-GEIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 7 Skyline
CITY: Hawthorne
STATE: New York
COUNTRY: USA
                                                                 APPLICANT:
APPLICANT:
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APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        280 TGTCCCAGAAATCTAAGTTGTTGAACTGGTCCAAGGCGTACTCGGCTAGGGTGTTTGGTG 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          376 TGTCGACAAAGTC---CTGATTGGGTTGATTAAGTGCAAATTCAGCTAAAGTGTTAGGTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    259 GGCCACTGCCATCGAAGTTGCAATTGGTTTCGACCCCAAATGCGAGCCTGGACTGTTCCTG 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            460 TAGGCGCATCAATGACCCACATTTGGCCCCGATCGAAACGTCGGCACCCGCTTTCGGGGT 519
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Pred. No. 2.7e-28;
0; Mismatches 198; Indels
                                                                                                                                                         APPLICATION NUMBER: US 07/329,018
FILING DATE: 24-MAR-1989
FRICR APPLICATION DATA:
APPLICATION NUMBER: US 08/045,957
FILING DATE: 12-APR-1993
ATTORNEY/AGENT INFORMATION:
NAME: BImer, James Scott
REGISTRATION NUMBER: 36,129
REFERENCE/DOCKET NUMBER: 36,129
REFERENCE/DOCKET NUMBER: 8-19825/PI/CGC 1727
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919)541-8619
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
FILING DATE: 20-JUN-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/100
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Best Local Similarity 60.5%;
Matches 334; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 900 base pairs
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STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: CDNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-455-244-4
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